INTERNATIONAL ECONOMICS

The Annals

VOLUME LXXXIII MAY. 1919

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THE AMERICAN ACADEMY OF POLITICAL AND SOCIAL SCIENCE
36TH STREET AND WOODLAND AVENUE
PHILADELPHIA
1919

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EUROPEAN AGENTS

ENGLAND: P. S. King & Son, Ltd., 2 Great Smith Street, Westminster, London, S. W.
FRANCE: L. Larose, Rue Soufflot, 22, Paris.
GERMANY: Mayer & Müller, 2 Prinz Louis Ferdinandstrasse, Berlin, N. W.
ITALY: Giornale Degli Economisti, via Monte Savello, Palazzo Orsini, Rome.
SPAIN: E. Dossat, 9 Plaza de Santa Ana, Madrid.

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Economic Internationalism

By E. M. Patterson, Ph.D.
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MUCH is heard today of internationalism, both political and economic. The proposed league of nations, the growing interdependence of peoples in different parts of the world and the need for better understanding and more complete agreement are all brought to our attention in private discussion, on platform, and by the press. At the same time much is said of the necessity for better trade organization, of commercial rivalry and of the plans here and elsewhere to conquer foreign markets. This article undertakes an analysis of these apparent contradictions.

In the past the economic organization of the world has been largely local or at the most national. To be sure, theoretical writers have argued for internationalism. The importance of free interchange of goods, of the removal of all trade barriers and of the economic brotherhood of man have been set forth at length. In England and in the United States particularly have writers on economic theory been internationalists. In Germany List's "National System of Political Economy" introduced an opposing view which, with modifications, has been accepted by most of his countrymen both in principle and in practice, but even with List economic nationalism was merely a preliminary step toward internationalism. Progress for all countries was in his judgment toward freedom of trade, of the sort even then adopted by England because her industrial development justified it.

The Dominance of Nationalism

Yet practice has been curiously and persistently at variance with the theories of internationalism. England is the only country that is avowedly free-trade, the other countries of the world having protective tariffs. This may have been very unwise and very short-sighted but such has been their policy. Moreover, England herself has been international in her conduct only or chiefly in her tariff. In many particulars she has been intensely nationalistic and has actually set an example to the world in some

of them. It was Lord Palmerston who established a precedent for modern "dollar diplomacy" when he utilized English naval forces to compel Greece to pay interest on some of her bonds owned by a subject of Great Britain. This example has been followed by other governments until today it is a frequent practice. English trade also is a matter of national pride and is to be developed not so much in coöperation as in rivalry with other countries.

Nationalism seems to be dominant in the economic life of the world. Those who argue against it and in favor of internationalism have a twofold task. First, they must show that there now exists an economic organization or machinery that makes internationalism desirable or possible, or perhaps even imperative. Second, these facts must be presented so clearly, so convincingly and so emphatically that there will rapidly appear among us a new conception. A large part of the task is to adjust our thinking and our terminology to the modified situation.

Some of the changes that have occurred are well understood. The growth of the large corporation, the increasing part played by capital and the significance of modern rapid communication and transportation are illustrations. Here are changes great in extent and influence. Their size is impressive, their activities are prominently before us and their influence on our lives is daily noticeable. Yet much of our reaction is merely a vague impression and not a full appreciation of what has occurred. A brief summary will be profitable.

Prior to the Industrial Revolution methods of agriculture were relatively crude. In England the land was still in the hands of small holders. In France a considerable proportion of the peasants were landholders but cultivation was hampered by many restraints both of law and of custom. Germany was still more agricultural than France but her methods were antiquated. In Germany industry was strongly under the influence of the gild. The same was true but to a less degree in France while in England the domestic system prevailed. Foreign commerce was very limited. That of France was small in volume, chiefly European and in fancy goods. England's was relatively large, was in staples and growing rapidly. Germany's commercial relations with the outside world were unimportant.

Then came the Industrial Revolution. To European agricul-

ture it meant heavier investments with an improved machinery and a new technique. Manufacturing in all countries witnessed the rise of the factory system, the increasing significance of iron and coal and the shifting of population from country to town. A gulf developed between employer and employe, the condition of the laborers, especially that of women and children, became deplorable. A larger product was secured under the new methods but a considerable fraction of it was sent abroad and the conditions of the European factory workers was worse than that of their fathers and grandfathers.

Transportation and communication also underwent great changes. Highways and canals grew in number, in size and in quality. Steam power was introduced and after a time the telegraph and the telephone. Trade flourished, the desire to control sources of raw materials and markets increased and opportunities for international rivalry and friction multiplied.

CAUSES OF ECONOMIC FRICTION

The economic competition which ensued was intense and probably inevitable. During the nineteenth century the changes that have been so briefly summarized swept over not one country but all of western Europe, while in the United States also modern methods were rapidly adopted. Instead of exploiting widely separated countries the rival commercial and industrial interests were brought into close contact. In Africa, in Asia and elsewhere representatives of different nations, finally including the United States, sought to push their own interests in opposition to those of their rivals.

This closer contact was enough in itself to produce friction but the difficulties were increased because of the large amounts of capital involved. Investments in land, in factories, in machinery and in transportation grew to enormous sums and gave intensity and momentum to the movement. While ownership was somewhat distributed there was still much concentration and under the changed conditions, control as distinct from ownership, centered in a relatively few hands. In London, Berlin, Paris, Vienna and New York much power and responsibility rested among a few small groups.

Another change appeared as the result of the corporate form of

organization. The owners of a given property (i.e., the stockholders and bondholders) are not usually the managers, and are concerned primarily with the regular receipt of dividends and interest. They do not often inquire too closely into policies and methods but ordinarily protest with vigor if their income is small or irregular in appearance. Officers and directors are under a greater pressure to make profits than we sometimes realize. Often a choice must be made between adopting questionable policies and methods and facing the relentless indignation of security holders.

IMPORTANCE OF UNINTERRUPTED OPERATION

Attention should also be paid to the importance of uninterrupted operation in modern business. Irregularity means periods of unemployment or part-time work with resultant discontent, unrest and perhaps violence. Fully as important to the employer is the relentless pressure of "overhead expenses." His outlay is of two sorts. The first is for items that fluctuate with the volume of business done. Cost of raw materials and freight charges are illustrations of expenses that are greater when the volume of business is large than when it is small.

On the other hand, some expenditures must continue with little reference to the output of a given year. Interest on bonds, insurance premiums, much of the depreciation on equipment and the salaries and wages of a considerable staff of employes must be kept up even though business is dull. In many plants these "overhead" expenses are larger than the variable ones.

Heavy "overhead" is largely due to the great amount of capital employed and has become increasingly significant in recent years as larger and larger plants are built. Continuous operation must be arranged for. Even temporary cessation means disorganization, a scattering of employes, a continuance of 50 per cent or more of expenses, and perhaps bankruptcy, while resumption after such an experience is extremely difficult. But continuity of operation necessitates a steady and large supply of raw materials, some of which perhaps come from abroad, and control over their sources becomes advantageous. A regular market for the sale of finished products is equally important. The home market can be secured in whole or in part by protective tariffs but foreign markets must be acquired and held in other ways. Greed for exorbitant gains

may draw many on, but relentless pressure to keep the great machine going explains much of the intensity of competition for colonies and for markets.

This is a very fundamental fact in our economic structure which goes far to explain the economic conflict between different countries. Large scale production by modern methods means a heavy capital investment. This involves large overhead expenses and makes any interruption of operations dangerous, the result being an acute rivalry for raw materials and markets. There should be added yet another fact. With the shift of population from country to town and the consequent decline in agriculture (especially noticeable in England) foodstuffs must be imported from the outside and control of the sources of their supply becomes important.

The forms in which this competition appears are familiar. Tariff wars, struggles for concessions, spheres of influence and peaceful penetration are among the most important, to which should be added the rivalries in international financing. The privilege of lending to a foreign country on the basis of securities to be resold to the general public at home is valuable. Moreover, such loans often carry with them the condition that orders for certain specified supplies shall be placed in the country whose bankers underwrite the loans.

OUTCOME OF INTENSE COMPETITION

The effects of the ensuing struggle are of two sorts. One is to bring the rivals to see the folly and the dangers of continuing the competition. Within the United States this result has long been apparent. Years ago our railroads realized that cutthroat competition meant bankruptcy. They abandoned it for pooling and when pools were made illegal other forms of association and of consolidation were devised. In recent years they have competed in service rendered but not in rates. The disasters of competition between such large enterprises has been recognized. In the international field there are many illustrations of the same tendency. Competition is disastrous and international organizations in banking, transportation and manufacturing follow. Coöperation between units formerly competitive prevents the disasters that might otherwise follow.

Consolidations may occur but the outcome is sometimes different, for competitors do not always compose their disputes. Instead of agreeing on some plan for coöperating they may prefer to continue the struggle to their own injury and often to the great loss of the public. This is constantly occurring in many industries, a good illustration being the retail grocery business where failures are numerous. If the field of competition is of international interest each competitor may appeal to his government and to his fellow citizens for their moral or material support. Feeling may develop which will result in open conflict of which illustrations are numerous. Rival claims in South Africa, English and French eagerness to control the Upper Nile, French and German friction in Morocco and Russian and English desire for supremacy in Persia are a sufficient list for the purpose. Dispute over the route of the Bagdad Railway or the control of an important seaport may bring great states to open warfare.

It may be argued that the conditions described are those of a past epoch. This may be true, but there are grounds for doubt. The war has not diminished the importance of large scale production but increased it. To meet the demands of war many plants have been enlarged, machinery has taken the place of labor and output has been standardized. Production in many lines is possible on a larger scale than ever with a capital investment greater than in the past. Pressure to keep an industry going will increase rather than diminish, for even more will be lost if the plant stops.

Still another change has occurred. Government control and operation of industry have grown rapidly to meet the war need and some of this new power will not be readily nor quickly surrendered. Railroad and telegraph and telephone companies may not be returned at once to private control and the influence of governmental bodies over price, quality and market conditions will remain for a time.

A DISCOURAGING OUTLOOK

With these two facts as stated what will be the outcome? Larger aggregations of capital are in existence than ever before. There is governmental organization for controlling and directing this industrial machinery to any desired end and we face the probability that the entire economic life of a country will be adjusted

for a conflict with that of rivals in the world's markets. No longer will there be a struggle of merchants in Berlin against merchants in Paris, manufacturers of the United States against those of England, bankers of Paris against those of London. All of the economic resources of Germany will be coördinated and pitted against those of her competitors who in turn will have similarly organized against Germany and against each other.

In the past Germany has carried this idea farther than her rivals and she will probably continue her old methods. But the example she has set is being imitated elsewhere as is clearly shown in the books and articles that are appearing on all hands.[1] In our own country combinations for export trade have been legalized, banks may coöperate in the establishment of foreign branches, subsidies are being asked and other measures are being taken to coördinate all of our efforts for the capture of foreign markets. In England, the home of individualism and the stronghold of *laissez faire*, is to be found the same tendency.

The picture is a dark one. Whole countries organized against each other possess a power and acquire a momentum that add to the dangers inherent in a commercial conflict. Subsidies may be given, "key" industries recognized and protected, one line of business, e.g., banking abroad, may be conducted at slight gain or even at a loss for the sake of profits received from an export trade encouraged by the banks, in fact all profits might be sacrificed for a time for political or other ends.

If this were merely a vision of the possibilities in a distant future, it would be of academic interest but no more. Instead it is a fact confronting us in the immediate present. If we drift, our solutions may be worked out with little conscious guidance from anyone, but probably not. Instead we may drift into another conflict even more serious than the one just ended. Nationalism was intensified during the war and has even grown during the discussion of the terms of peace.

"PROTECTION" MUST BE DEFINED ANEW

This tendency to unify the economic life of each country introduces modifications of thought and policy in many directions. Protection is no longer a matter of import duties on certain

[1] See, for example, the articles in this volume by Messrs. Colver and Lippincott.

specified commodities. In the words of Grunzel it is "neither more nor less than the sum total of the measures adopted by the national-economy unit for the purpose of advancing its interests in the field of world economy." Control is exercised over the importation and exportation of commodities, over the movement of capital into and out of a country and even the emigration and immigration of peoples is subjected to strict supervision.

Reference was made above to the ways in which the problem has been handled within each country. Competitors may get together thus ending the losses due to reckless underselling or they may continue their rivalry with disastrous results to the public as well as to themselves. If the first plan is followed there develops a twofold danger. Business is conducted primarily for profit, product being merely a means to that end. A combination of competitors may acquire a monopolistic control and utilize it to raise prices. This places on the community a financial burden that may be unduly heavy but would not be so serious if it were not necessarily accompanied by a restriction of output. In order to maintain prices at a higher level production is curtailed and we must content ourselves with (1) a smaller volume of goods which are (2) sold at a higher price.

In order to minimize these difficulties we have imposed numerous restraints upon monopolies. One is to prevent their formation or to dissolve them after they are organized, a procedure which has met with rather indifferent success. The other plan, also far from successful though much better, has been to recognize the monopoly or even to encourage it but to dictate the price and other conditions under which its commodity or service must be furnished to the public. This policy has been applied especially to the group referred to as public utilities.

COMPETITION VERSUS COÖPERATION

Another way of describing the tendency is to say that competition is gradually yielding to coöperation. In our personal relations we still compete but, after all, our coöperation is of far more importance. Even a casual survey of one's relations with his fellows shows how much he is dependent upon them and their activities. He still competes with them or with some of them but in a relatively limited field. The same is increasingly true of

our domestic relations in general. One corporation depends on many others, each industry can operate sucessfully only if others do the same, one part of our economic life functions to best advantage when the others do likewise. Interests that are common are after all more numerous than interests that are divergent or antagonistic.

Against the dangers that arise we may endeavor to guard by still more complete coöperation, utilizing our governmental organization to assist us in getting satisfactory results. The fact that the results attained are so imperfect does not demonstrate that they are not better than would prevail if there were no such arrangement. Is it too much to hope that this coöperation may be increased within each country and extended more fully in the international field? What is the outlook?

First it may be observed that many competing corporations have already recognized that the accident of their location under different governmental authority is by no means the final consideration. Working agreements, holding companies and other devices for unified effort abound. International combination is in some industries an accomplished fact and will spread rapidly. Probably its extension would be still more rapid and certain were it not for the intensity of our nationalism. The belief in the common interests of the individuals residing within a given geographical area is very persistent and deep seated. All of the advantages that inhere in such a conception need not prevent our recognition of its tendency to retard international consolidations.

Yet if our transportation companies, industrial establishments and banks come together in an attempt to control the world market they may become a universal menace. "Trusts" within a given country may curtail output and raise prices or in other ways prove injurious and such practices may presumably be employed in the broader world field. Against such a contingency the only protection seems to be international coöperation of some kind, presumably to be secured best through a League of Nations.

The second possibility in the international field has already been suggested. Instead of private working agreements or consolidations of companies in different countries, there may be developed a close organization of all industries in each country with governmental coöperation and supervision for the purpose of

vigorous and probably ruthless competition. The driving force of such combinations would be enormous. They would acquire such a momentum and become so reckless of consequences as to make war inevitable. Either international "trusts" or a scramble for trade by competing nations will be dangerous. Neither would be a solution of our difficulties nor furnish us the internationalism that is needed.

In the light of past experience and present tendencies it may be observed that the task of internationalism is complex. The advantages of large scale production, of the corporate form of organization and of the extensive use of machinery rather than human labor must be retained. There must not ensue a scramble for profits that will precipitate another war nor must international trusts be permitted to curtail output or to charge excessive prices. To forecast the forms of organization or of agreement necessary to attain these ends involves more prophetic vision than the writer possesses, but some of the factors that will help or retard the movement may be indicated.

FORCES OPPOSING INTERNATIONALISM

Influences operating against the development of economic internationalism are strong and persistent. One is the fact that business is conducted primarily for profit. Product is of importance to the individual only as it contributes to that end. So general is this that one is apt to overlook its significance. Concern for profit leads each of us to adjust his business in such way as to secure the largest number of dollars for himself. This may be accomplished by means of a large output of wheat, cotton or shoes thus furnishing the community with more commodities. On the other hand, more money may often be made by driving out a competitor with methods that may not add to the volume of goods produced but may even give to the community less product and poorer service than before. Or if control of the market is sufficient it may be profitable to destroy commodities or plan to curtail future production. The smaller volume of output may sell for so much more per unit as to yield a greater return.

This idea is firmly entrenched and permeates most of our thinking on economic questions. Profit, even at the expense of product, is so obviously advantageous to separate enterprises that one

readily assumes that the same policy if pursued by all will result in a general gain. That it does not have such a result does not call for elaboration nor is it necessary to dwell at length on the fact that the exaltation of profit even with a loss of product is not a view peculiar to trust magnates and captains of industry. All of us are influenced by it and struggle more or less vigorously to secure and retain monopolistic advantages. Apparently the view will yield only under pressure from some strong counteracting influence.

Business primarily for profit rather than for product appeals the more strongly because our interests as consumers are so diffused. A small cotton crop means a higher price for cotton than if the crop were large but after all only a small fraction of one's income is spent for cotton and it is pleasant to think of large profits for cotton producers, even though they may have deliberately curtailed output. We hold the same view with reference to all of the other articles we consume, finding it difficult to develop enough interest in any one direction to protest against the loss.

This attitude toward profits affects not only domestic enterprises but international affairs. A large and properly diversified product is by all odds the result to be desired but the longing for profits predisposes us to favor those plans and policies which seem to contribute most immediately and directly to that end. Profits from foreign trade in steel, in meat and in grain are sought and approved with little or no reference to the more important considerations for all concerned, viz., the volume, character and destination of the commodities. The output may be small, the price high, the gains secured by foreigners or by a limited group in one's own country but the magic of the word "profits" quiets all discussion.

A curious result of this viewpoint is found in our thoughtless approval of an excess of merchandise exports, a so-called "favorable" balance of trade. Ordinarily approval is given to such a balance with but little thought of its significance. One reason is presumably the effect of the word "favorable" on one's thinking. It suggests something that should be desired and is to be approved, thereby giving an important illustration of "begging the question." That the expression is merely carried over from a time several hundred years ago when an excess of merchandise exports and an

importation of gold and silver was of real advantage, is usually overlooked. That for some countries, at some times, an import balance of merchandize is the better; that any country which exports its capital is to that extent limiting the amount of possible investment in its domestic industries; or even that an export balance of merchandise for every country is an impossibility, seldom occurs to us. An export balance for the United States at all times is assumed to be the best and any intimation to the contrary or a suggestion that the matter be argued on its merits, is met with discouragement.

Attention may also be called to the belief in national self-sufficiency as an ideal and in the superiority of one's own national customs and institutions over others.[2] These beliefs lead at once to the advocacy of heavy protective tariffs; to plans for "imperial preference"; to the encouragement of manufacturing goods at home regardless of cost; and to a determination that any and all products of one's own country must be pushed with vigor in other lands. Governments are so impressed with this view that they exert themselves most vigorously to assist.[3]

INFLUENCES FAVORING INTERNATIONALISM

These influences are by no means the only ones but suggest the observation that much of the task is that of changing our way of viewing many economic matters, of becoming more willing to face facts and analyze problems on their merits. So difficult does this seem and so much of a revolution in our thinking is implied that it is well to point out at once some of the changes that have taken place. Progress is already being made.

First is the fact that the economic interdependence of the countries of the world is today more fully realized than ever before.[4] The war has shown the wonderful possibilities of coöperation, both military and economic. Much has been accomplished by assigning to each country the work for which it was best suited by location and resources. In the division of duties much devolved upon the

[2] The article in this volume by Dr. J. R. Smith (p. 86) clearly presents the significance of this observation.

[3] Mr. Schmeckebier in this volume outlines this work as it is being done at present by our own government.

[4] For an interesting analysis of this the reader is referred to the article by Mr. Grosvenor Jones in this volume.

United States because of its location and the scarcity of shipping. Some of the conditions have changed but the significance of the lesson will remain and perhaps also some of the actual organization by which the results were secured during the war.

A second factor is the actual existence of an international organization in many industries. Foreign selling agencies and branch banks abroad are illustrations. Even the financial disorganization prevailing in a country like Mexico can best be remedied by a recognition of the importance to her creditors of her economic development along natural lines.[5] What is true of Mexico is presumably true of Russia and other countries and signs are not wanting that business leaders in the United States and England particularly are aware of it.

A third factor is the organization of consumers. Producers' organizations have been the rule but in addition to their numerous advantages they have tended to keep attention concentrated on profit. Consumers are more concerned with product and with product at the lowest practicable price. Consumers' leagues and coöperative societies will help us in shifting the emphasis.

As an offset to the enormous growth in the power of centralized government there is to be observed a decentralizing movement. Prior to the war active discussion of this was under way in France. Many of our economic interests are national in significance and in organization and can be dealt with satisfactorily only by a strong central government. Others, however, are more local in importance and cannot be so well handled by a federal or imperial authority. Indications of the reaction are to be found in the demands for more autonomy by Ireland, Egypt and India within the British Empire; in the movement just mentioned for a less centralized organization in France; and in the growing demand for more home rule among the cities of the United States. Attention is being attracted also to the way in which the local authorities in Germany have handled many serious emergencies since the signing of the armistice and much may perhaps be learned also from the operation of the Russian Soviets when their activities can be more accurately and impartially studied.

[5] For an elaboration of this, see the article p. 180 by Mr. E. D. Trowbridge.

THE INDUSTRIAL UNREST

This survey is already sufficiently long, but reference must be made to the current proletarian movement, to the phenomenon of industrial unrest. It has appeared in different forms and an unbiased opinion of its details is still impossible. Nevertheless, one may already hazard a few observations regarding its significance and its results.

First, it seems clear that as a result of it the workers are to be given a larger share than before in the operation and control of their industries. The Soviets of Russia, Hungary and Germany and industrial councils in England and the United States may differ widely in many regards, but in this they are similar. Presumably this will involve some shift in emphasis from profit to better working conditions or even to product. If workers can be brought to appreciate their position as consumers as well as producers much gain may follow but it is too soon to speak of this with confidence.

Second, one may observe that any extension of the idea of industrial instead of geographical representation in legislative bodies will make for internationalism. So long as legislators are chosen to represent people residing in a given area of land, nationalism is encouraged. In so far as they frankly represent a given industry, such as steel or oil, their interests cannot well be confined within geographical limits, but will extend as far as the industry. Individuals residing in the agricultural districts of East Prussia may be needed to advise or to vote in a Russian duma because of the close relationship of the agricultural life of that region to that of Russia proper. The lumber interests of our great Northwest are not divided by the Canadian boundary line nor the grazing interests by that between the United States and Mexico. Charges have often been made that legislators chosen nominally to represent certain industries have often shown undue concern for foreign connections of those enterprises. If this be true it is an evidence of the international character of our economic life and a legislative body frankly chosen on an industrial basis would be more open and more honest and would be an important factor in the development of economic internationalism. In addition to the more radical proposals for such representation as

it is now being tried in eastern Europe there is to be noted the national gild movement of England which definitely urges a unity of interests among producers which calls for their organization as such, the state retaining the function of safeguarding us as consumers. Even if none of these proposals and experiments succeed they reflect a changed outlook and a new point of view which may have some effect on our future institutions.

Clearly this summary of influences operating for and against economic internationalism is incomplete. To the writer the ones named seem the most important though it may well be that in the long run others will be more significant. Thus newspaper correspondents in France have recently reported that the free traders of that country are elated over the effect of air transportation on protection. Collection of duties becomes almost impossible when goods can be imported by airplane and this may greatly modify or compel the abandonment of protective tariffs and so encourage internationalism.

Apparently internationalism must be built upon nationalism. For the present the influences that produced economic friction in the nineteenth century persist and are even magnified. A rivalry more acute and dangerous than that of the past may be confronting us. Desire or necessity for profit, belief in the efficacy of a "favorable" trade balance and confidence in "national self-sufficiency" combine to aggravate the difficulty. Nevertheless the conomic interdependence of the world is a fact that is slowly becoming recognized, there are some decentralizing tendencies and out of today's confusion may come a different outlook and a new conception of welfare. With such changes will come new perplexities but international conflicts may be fewer and international coöperation more common.

International Phases of the Land Question

By T. N. Carver
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SUPERFICIALLY the land question would seem to be wholly a national or a local question with little or no bearing on international problems. Fundamentally, however, there are few questions of more far-reaching and enduring international interest. The currents of human migration in the past have been mainly in pursuit of land. Land policies, of course, had nothing to do with the migrations of primitive tribes. These were mainly migrations of conquest. Wherever unpeopled lands have lain within the jurisdiction of governments strong enough to repel invaders the peopling of such lands has been a question of the land policy of the government.

Land Policy of the United States

Our own national history has been affected by our land policy more, perhaps, than by any other single phase of our governmental activity. If one were asked to name the most important institution in American life up to the end of the nineteenth century he would not go far wrong if he were to name the Prairie Schooner, not so much for what it was as for what it symbolized. It symbolized the joining of man and nature—the making of effective contacts between population and land, than which nothing could be more fundamental. The establishment of allodial tenure in the northwest territory by the ordinance of 1787 was quite as important in giving character to our national life as the better known provision prohibiting slavery and guaranteeing a republican form of government. This popular system of land tenure made land the private property in fee simple of the individual to whom it was deeded by the government.

This kind of land tenure satisfied the land hunger of the adventuring, pioneering type of man more fully than a less popular and individualistic form of tenure could possibly have done. It therefore tended to stimulate westward migration as no other policy could possibly have done. Besides it made land a merchantable

commodity and this tends to put land in the long run into the hands of those who can use it most effectively. The reason for this is that any piece of land is worth more to a farmer who can use it effectively than to one who cannot. Where no obstacle is put in the way of the free transfer of land, that fact will in the long run put each piece of land in the hands of the most efficient user.

Westward migration, however, was not wholly a local or national affair. The landless men came not simply from our own population but from all countries of Europe. If one had charted on a map of the world the currents of human migration he would, to begin with, have made the most important map ever drawn, and what is more to the point of the present discussion the map would have shown that these currents of human migration paid, apparently, little attention to national boundaries. Back of these migratory currents, and in a sense causing them, or at least making them possible, was the liberal land policy of our federal government.

INFLUENCE OF THE MONROE DOCTRINE

The Monroe Doctrine likewise had its part in determining the course of these currents. Land seekers from Europe naturally preferred to seek land under a stable and intelligent government, rather than under an unstable and undependable government. The desire of European governments for colonies and dependencies was not wholly due to the rapacity of autocratic rulers. It was in part due to the unwillingness of land seekers from those countries to settle under the turbulent and unstable governments of Latin America. Our enunciation of the Monroe Doctrine made it certain that land seekers who came to the Western continent would find a stable and dependable government nowhere else than within the boundaries of the United States. By concentrating the currents of international migration upon our own shores, we enormously hastened the sale of our public lands and the settlement of our western territories. There is no evidence that this was the deliberate intention of the propounders of the Monroe Doctrine, but there can be no doubt that it was one of the results.

One of the uncertainties of the period on which the world is now

entering is the possible redirection of these currents of migration. There is no inherent necessity compelling them to set westward rather than eastward. It has happened since the discovery of America, that vacant lands lay to the West rather than to the East. The prehistoric migrations into Europe tended westward rather than eastward for the same reason. Everywhere the tendency of rural migrations is away from densely peopled to sparsely peopled lands.

The coming of the Turk into the western world was the last great disturbance which turned the currents of migration in a new direction. Europe was already beginning to flow back upon Asia when the Turk arrived. It was this fact, as much as any other, which caused Europe to face westward again instead of eastward. The probable elimination of the Turk as a result of the great war may reverse the process. Eastward Ho! may be the cry of the land hungry during the next century. "Ararat or bust" may by the middle of the present century play a part similar to that played by "Pike's Peak or bust" in the middle of the last. A liberal land policy in Asia Minor and Mesopotamia under some kind of a stable and dependable government will in all probability turn land seekers in that direction. Without a liberal land policy and without a stable government land seekers will have no inducement to turn in that direction.

EXPANDING VERSUS PENT-UP CIVILIZATIONS

Another result, almost equal to migration in importance to all countries, and like it depending upon land policies, is the question of the expanding *versus* the pent-up type of civilization. An expanding civilization is one in which population may increase indefinitely through the expansion of the opportunities for gaining subsistence. This will require an agricultural population to spread over wider areas or to colonize. It will require that an urban population should expand its markets. A pent-up civilization is one which maintains itself permanently in a given territory. In agriculture this means the continuous *morcellement* of land or the development of a numerous agricultural proletariat. An urban population must become stabilized both as to numbers and types of industry, or it must press incessantly upon the means of subsistence. Both rural and urban populations are faced by one,

and only one, alternative. It will either become over-populated and be forced to reduce its standard of living, or it will exercise birth control.

Types of National Civilization	Expanding	Rural	Spreading beyond national boundaries
			Enlarging national boundaries
		Urban	Enlarging markets in other countries
			Building colonies with which to trade
	Pent-up	Oriental	Overpopulation
			Forced migration
		Occidental	Exercising birth control
			Morcellement of land

The land policy of the Code Napoleon requiring the subdivision of estates, while it looked fair enough, undoubtedly tended to encourage each rising generation to hang around home, waiting for the old folks to die in order to get a share of the land. This tended to develop a pent-up rather than an expanding type of civilization. The English system of primogeniture, while monstrously unfair, had the opposite effect. The younger sons, knowing that there was nothing to be gained by waiting for a share of the family estate, were forced out into the world to seek their fortunes independently. It is no accident that those nations that retained primogeniture, or something like it, such as England and Prussia, have continued to expand, while those that adopted the Code Napoleon ceased thereafter to expand.

The United States, however, during the greater part of the nineteenth century continued to expand in spite of our adoption of allodial tenure and something similar to the Code Napoleon in regard to the subdivision of estates. This, however, is primarily due to the artificial encouragement which the federal government gave to land settlement through the preëmption, homestead and timber culture laws. Since the practical exhaustion of all that part of our national domain which is fit for settlement, further expansion has tended to carry our rural people beyond our frontiers into Canada and Mexico. Recently, however, the name of democracy has been invoked against further expansion when it involves the spreading of our people beyond our present national boundaries. Notice is served upon American enterprises that if they seek to colonize as farmers, or expand their business as merchants and manufacturers beyond our boundaries, they do so at

their own risk. Our present political tendencies, in short, are calculated to encourage the pent-up type of civilization and to hinder further expansion.

PROBLEMS OF AN EXPANDING CIVILIZATION

This undoubtedly raises large international questions, though like the question of human migration it is too large and important to be of any interest to the average statesman. An expanding civilization leads to a clash of interests between nations and races. Each expanding race must sooner of later come into competition for lands and markets with some other expanding race. This will require diplomacy of the greatest wisdom and skill if we are to avoid future wars. Each nation can develop a pent-up civilization without competing with any other nation which is likewise content with a pent-up civilization. In this case, however, birth control is the only agency that can avoid ultimate overpopulation. These alternatives present a rather hard choice but it is the only choice before us. There is no other alternative.

The possibilities of further expansion within our present boundaries are scarcely yet appreciated. Along our northern border lies a strip of cut over timber lands extending from Maine to Minnesota, which is capable of providing a vast addition to our present food supply. Though too far north for our greatest crop, corn, it is not too far north for wheat, oats, rye and barley and it is ideal potato land. Potatoes may yet become our greatest food crop as they have already become in Europe. Another area, equal in extent and in possibilities of food production, is our southern coastal plain extending from Florida to southern Texas. Lying just south of the cotton belt it is ideal land for almost all truck crops and is especially adapted to the sweet potato, which is even more wonderful in its possibilities than the white potato, and is in fact one of the most remarkable food plants known to man.

STEPS TO BE TAKEN

Four things are necessary to bring these vast areas under food crops: (1) A population capable of consuming the crops and able to pay a remunerative price for them; (2) Means of transportation capable of carrying these crops to the population; (3) A change in the standard of living which will make the people willing to eat more potatoes, both white and sweet, than at present;

(4) A liberal land policy with respect to the reclamation and settlement of those lands.

Time itself will produce the first three conditions; we must take the initiative with respect to the fourth. Since these lands do not now belong to the national domain they are, of course, not open to settlement as our western lands were. A liberal policy on the part of our state governments in coöperation with the federal government may bring them under cultivation as rapidly as the needs of our population call for them.

There is also the dry farming and the irrigation farming of the arid west and the reclamation of considerable areas of swampy lands in the humid area to be considered. The possibility of more intensive cultivation of the lands already under cultivation is not to be ignored. This, however, can only come about through higher prices for crops or the development of better tools and machinery, unless it is to result in a reduction of the standard of living of the farming people. But there is no reason to doubt that the inventors will be equal to the task of devising instruments which will reduce the expense of intensive cultivation, as they have devised instruments to reduce the expense of extensive cultivation in the last century.

With all these possibilities in mind there is no doubt that we can, if we are forced to it, produce twice as much food in this country as we are now producing, and support approximately twice our present population without seriously reducing our standard of living or greatly increasing the prices of food products. Barring unforeseen inventions it is likely that some reduction in the standard of living will be necessary and some further increase in the prices of food. While technically the habit of eating a slightly larger proportion of potatoes would be counted as a reduction of the standard of living, it is not such a reduction as needs to be considered a real hardship.

We can, in short, expand our population considerably within our own boundaries without expanding our foreign markets or colonizing our farmers. In so far as we can do this we shall avoid competition either for lands or for markets with other peoples. This is a matter of the utmost importance. International competition for lands and markets, since the religious wars, has been the most prolific cause of war. Anything which can soften or postpone that competition becomes, therefore, a basic condition of peace.

The Declining Independence of the United States

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THE boast of the average American for some years has been that the United States produces practically all that it needs in the way of foodstuffs and raw materials. This has been the idea not only of the man of the street but also of the statesman. The boast of the citizen may be attributed to national pride and to a perfectly human tendency to brag. In the case of the statesman, the boundless extent of many of our natural resources and the rapidity with which they have been developed in recent years so amazes him that he is often inclined to magnify the degree of our economic self-sufficiency. Then too, statesmen of a certain school have been so much in favor of the exclusion of foreign goods that some of them were tempted to wish that the oceans surrounding our coasts were impassable gulfs so far as trade with other nations was concerned. These men proceeded on the theory that we could get along without commercial intercourse with other nations.

That the degree of our self-sufficiency was unduly magnified is only now beginning to dawn upon the average citizen. But if he stops to think he will note the changes that have come over the United States in the past half century and will be deeply interested to observe the effects of those changes. He will realize that many of our important foodstuffs, such as coffee, tea, cocoa, and tapioca, come from foreign lands and that as our population grows we become more and more dependent upon foreign countries for those products. If he considers the subject of clothing he will realize that we are absolutely dependent on foreign countries for our supplies of flax and silk and for certain classes of cotton, and that for a large part of our wool supplies we must now look abroad. These things are well known but in addition he should know that our manufacturing industries are importing much of their raw materials from foreign countries; that we are, for example, dependent on the Far East for tin and antimony; on Peru for vanadium;

on Russia, Brazil, and India for manganese of the best grades; on Russia and Colombia for platinum; on Canada for nickel; and on the Straits Settlements, the Dutch East Indies, and Brazil for rubber.

TRADE CHANGES IN OUR EARLY HISTORY

A study of the course of the foreign trade of the United States since 1783 shows that there have been from time to time important changes in the character and direction, as well as in the volume, of our foreign trade. The causes and effects of these changes cannot be clearly understood unless we take into account the concurrent facts of our political as well as our economic history and of the political and economic events in foreign countries. It is, however, beyond the scope of this article to do more than indicate some of the more striking incidents. It will suffice to call attention to the fact that the continental wars of Europe in the early years of the nineteenth century gave a decided stimulus to the export trade of the United States, just as the heavy immigration from Europe following the revolutionary movements of 1848 and the potato famines of Ireland of about the same period contributed largely to the increase of population and the expansion of the agricultural industries of the Middle West and thereby to the growth in our exports of agricultural products. The passage of the Corn Laws in England had a marked effect on farm development in this country, while, of course, the invention of the cotton gin several decades earlier stimulated the production of cotton in our Southern States to the point where the United States soon became the world's primary source of supply for cotton.

The Civil War, or what Henry Watterson, in his recent memoirs, calls the War of the Sections, cutting off as it did the United States from its European sources of manufactured goods, brought about a marked development in our manufactures, particularly in the North, a growth which proceeded at a rapid rate in the five succeeding decades. Moreover, it led to a more rapid settlement of the country west of the Mississippi, while several decades of transcontinental railroad building made available not only to the people of this country but also to the world the vast agricultural, mineral, and forest resources of the great valley between the Appalachian and Rocky Mountain systems.

CHANGES SINCE THE CIVIL WAR

The three decades following the Civil War constituted a period of rapid and at times almost feverish development of the resources of all sections of the country. This was the period of greatest railroad building in the history of the world and of the most extensive land settlement and mine and forest exploitation in this or perhaps any country's history. It was a period of intense absorption in the initial development on a large scale of our own great agricultural, mineral, and forest resources, a movement which was assisted by a vast immigration from Europe and the investment of huge amounts of European capital. The development of the great natural resources of the Middle West and Far West was approaching its climax in the closing years of the nineteenth century and was then yielding place in popular interest to that equally remarkable development of manufacturing industries which has been in effect for several decades.

The last fifty years have also witnessed the rapid settlement and development of other sections of the world and therewith a remarkable increase in the world's wealth and in international trade. Thus, the self-governing dominions of the British Empire—Australia, South Africa, Canada, and India—have progressed by leaps and bounds and out of all ratio to the increase in population. Australia advanced first by reason of the gold discoveries and then as a result of the development of sheep raising and grain production; South Africa, as a result of the discovery of diamonds and gold; Canada, because of its agricultural and lumber production; and India, by reason of its general economic advancement. During this period, Japan, and in a lesser degree China, made quick response to the stimulus of occidental ideas, while some of the nations of Europe, such as Germany, also made remarkable progress. At the same time certain Latin American countries, notably Mexico, Argentina, Brazil, Chile, and Uruguay, attained places of importance in the world's economy.

The fifty years preceding the outbreak of the recent war in Europe was a period of intensive development of the world's resources. The production of all food supplies and basic raw materials advanced at a progressive rate. International trade became more extensive in response to increased demands for the goods of other nations and was facilitated by the improved mechanism

of trading. Just as the building of transcontinental railroads assisted in the development of the resources of our Western States and in the binding together of this nation, so did the development of the steamship assist in the exploitation of the resources of many virgin countries and result in closer trading relations among the nations. With the slower, smaller sailing vessels, the economic development of such remote lands as Australia, New Zealand, South Africa, Japan, China, and India, would have been far less advanced than it is today. The cable also brought the nations closer and facilitated international trade. Investment of capital abroad by the older nations of Europe, particularly Great Britain and France, and the comparative peace of the world for several decades prior to 1914, were a stimulus to rapid and efficient exploitation of the resources of nearly every section of the earth.

CONDITIONS AT THE CLOSE OF THE NINETEENTH CENTURY

Toward the close of the last century there was apparent a decided change in the character of the foreign trade of the United States both on the import and on the export side. This was coincident with the change in the trend of our economic development. The produce of our farms was not mounting in quantity as formerly. It began to appear that we were reaching the peak of our production of wheat, corn, and the other grains, and that we had about reached the maximum number of cattle and sheep that could be sustained on our lands. This condition was reflected in our exports although the rise in prices beginning in 1897 tended to cover up the annual decline in quantity of exports in the case of many of these leading agricultural products. At this time manufactured goods began to be exported in increasing volume and there was a corresponding increase in the importation of raw materials and of semi-manufactured products.

Even if the war in Europe had not occurred this shift in the character of our imports and exports would have continued in the direction of an increasing proportion of manufactured products in our exports and of a corresponding increase in the proportion of raw materials and semi-manufactured products in our imports. It would have been accompanied by a gradual liquidation of our indebtedness to Europe which had been created by European investments in the United States, and also by a rapid extension of investments of American capital in foreign lands.

The recent war has accelerated certain pre-war tendencies in our foreign trade and has produced conditions that are decidedly new. The war has changed us from a debtor to a creditor nation and whereas formerly we owed Europe four or five billions, Europe is now indebted to us, if credit be given for the American securities still held there, to the extent of nine or ten billions. It has given us increased financial power. It has given us a merchant marine which we probably would not otherwise have had for many years. It has brought about a more rapid extension of our trade in foreign markets and a better understanding of the need and importance of foreign trade. It has resulted in a tremendous increase in our production of all clasess of manufactured goods as well as of mineral, of forest, and even of agricultural products, at the same time introducing certain new industries. The war, too, has practically stopped immigration. Whereas before the war the number of immigrants ranged from 700,000 to more than a million persons annually, during the war the number was very limited, and there is prospect that in the immediate future it will still continue small.

EFFECTS ON OUR TRADE POSITION

All these changes produced by the war have altered our position in international trade very materially. Our position as a debtor nation required us to pay several hundred millions of dollars to Europe annually in interest and acted as a spur to our export trade, but by the same sign the liability of Europe to us for 500 or 600 million dollars in interest may operate, in the immediate future at least, as a hindrance to our export trade.

The war has also had a profound effect upon the economic development of other countries and has thereby altered their standing in international trade, to the advantage of certain countries and to the detriment of others. The full force and effect of the changes produced are difficult to gauge amid the uncertainties of the transition period. Not until a conclusive peace has been signed and accepted and the nations have begun to devote their whole energies to peace-time pursuits, can forecasts be made with any assurance.

RECOVERY IN EUROPE

Of all the nations of Europe probably none have been affected by the war more than have Great Britain and Germany. While

the former lost heavily in ships and also lost some ground in foreign trade, and piled up a huge debt which must place a heavy tax burden upon her industries, nevertheless the necessities of the war acted as a spur and not only introduced important new industries, but also revitalized most of the old ones, which have in many instances new and larger plants, more modern machinery, and more modern methods of manufacture. The industrial outlook for Great Britain was described by Lloyd George three years ago in these terms: "A new Britain is being developed, a new industrial Britain. Under the great pressure of the war we are increasing and improving and quickening our industrial resources to an extent which would have been impossible but for the demands of this conflict."

The effects of the war on economic conditions in Germany cannot be appraised with much accuracy as yet. This much, however, is certain; the terrific loss of men must cripple many German industries for years; while the rehabilitation of her railroads and of a considerable number of plants in which machinery was worked to a feverish limit during the war, will require several years at least. Moreover, the low stocks of important raw materials for which Germany is chiefly dependent upon other countries, coupled with her crippled financial position, must further retard her resumption of industry. Then, too, the loss of Alsace-Lorraine will deprive Germany of her most important source of iron ore. The loss of the coal supplies of the Saar Valley would also have an effect. Add to these the payment of heavy indemnities, which will doubtless be imposed, and the relinquishment of most of her merchant marine, it seems clear that it will be years before Germany can again assume an important position in international trade. And yet, freed from the burden of maintaining large military and naval establishments and with the well-recognized organizing ability of her industrialists and the thrift and industry of her population, no one can predict how soon Germany will take an influential place in international trade.

The effects of the war upon the industries of Belgium and France need not be recounted. The numerous blast furnaces, textile mills, machine shops, sugar mills, and coal mines of Belgium and northern France have been either completely wiped out or so

badly damaged as to require years for making the necessary repairs. The fertility of large areas of agricultural land has been greatly impaired and hundreds of thousands of cattle and work animals have been destroyed or consumed. The speed with which Belgium and France are restored to their former industrial position will depend largely upon the amount and character of the indemnities they receive from Germany and upon the financial assistance extended them by their allies. The people of both Belgium and France are noted for their habits of industry and thrift, and, while there have been heavy losses in man power, these losses will be compensated for in part by the modernizing of industry and the introduction on a large scale of labor-saving machinery and methods. With Alsace-Lorraine France will not only secure a considerable increase in territory and population, but also enormous deposits of iron ore which have great value with the improved processes of smelting perfected since 1870, in addition to valuable stores of potash. If France also obtains, either permanently or for a limited term, the coal of the Saar Basin, she will be in a position of greater economic independence than she has been at any time since coal and iron began to determine the industrial importance of a nation.

The industrial districts of Poland—those near Warsaw in particular—have suffered heavily through actual destruction, or through pillage by the Germans. Large textile and other mills which were in or near Warsaw, Lodz, and other Polish industrial centers, will not be restored to their former activity for many months or perhaps years.

The economic rehabilitation of Russia is doubtless the most uncertain factor in the equation. If political conditions gave only a slight promise of betterment within the coming year, it would be far easier than it is at present to gauge the future of world trade, since Russia under ordinary conditions furnishes a large proportion of the world's supply of grain, lumber, hides, wool, manganese, platinum, and other commodities, and is now a very large but uncertain debtor to Great Britain and the United States as well as to France.

EFFECTS OF THE WAR IN OTHER PARTS OF THE WORLD

While in most sections of Europe the war destroyed or impaired industry, in other parts of the world it acted as a great

stimulus to industry. Absorption of the leading countries of Europe in the war stimulated agriculture, mining, and manufacturing elsewhere. These industries were stimulated not only in the United States but also in Canada, most of the Latin American republics, Japan, China, India, the Dutch East Indies, and South Africa. The stimulus of war has greatly increased the world's production of many commodities, as for example, wheat, corn, sugar, and rice, among agricultural products; copper, lead, and zinc, among the metals; iron and steel, textiles, machine tools, and meat products, among the more important manufactured products.

One of the significant effects of the war has been the shift in sources of supply for certain commodities. Manganese is an example. Formerly it was received from southern Russia but now, so far as the United States is concerned, it comes from Brazil. The shutting off of supplies of platinum from Russia, the world's principal source, stimulated the production in Colombia, the only other important source. The inability to secure optical glass and dyestuffs and other important chemicals from Germany has stimulated the production of these commodities in England and the United States.

The shortage of shipping during the war also has had a profound effect upon world trade. The scarcity of ships necessitated their use on the shortest routes regardless of the cost of commodities. Speed in delivery, not price, was the controlling factor. Huge quantities of grain, wool, mutton, and hides in storage in Australian ports although they could be had at prices far below those of similar products raised in the Argentine and the United States, but the time required for the voyage to Australia barred out most of the ships ordinarily engaged in that trade. The same was true of the sugar of Java. Time was of the essence and the nearest market was given the preference. This has had the effect of establishing more direct routes for American trade. Rubber, tin, and other commodities from the Straits Settlements and the Dutch East Indies come to us directly from those parts instead of by way of London and Rotterdam. Our trade with South America and the Scandinavian countries is also routed more directly.

OUR DISAPPEARING TRADE BALANCE

Contrary to the belief of many Europeans, the war alone is not responsible for the great increase in our foreign trade. The war doubtless accelerated the development of that trade, but the fact is that our trade with other countries was increasing in volume rapidly for at least a decade prior to 1914.

Far from helping, the great excess of value of exports over imports, produced by the abnormal war demands of Europe, has become so great as to threaten a temporary impairment of our foreign trade at a time when this trade is needed to take up the slack of the after-war period.

This check need not cause alarm. It is a natural reaction from the long period of extensive foreign buying in our markets. During the war the so-called favorable balance of trade has been liquidated in part by the return of several billions of American securities and by the payment of more than a billion dollars in gold, but an even greater amount is still due us in the form of British and French government loans of approximately one and a half billions, raised through private banks, and in credits of upwards of nine billions extended by the United States government.

It is clear that Europe cannot continue to import in large volume from the United States, without some new financial arrangements. Even if some satisfactory method of financing should be devised, the new credits would be absorbed largely in purchases of foodstuffs, necessary raw materials, and semi-manufactured products and not enough would be available for the conduct of a broad general trade on a very extensive scale.

Europe does not, however, appear to be demanding new credit facilities in this country except for the most necessary commodities. The countries seemingly most in need of credit are taking active steps to reduce their imports to the lowest possible level so as to revive their domestic industries as well as to right the balance of trade which has been heavily against them for several years. Passively these countries have withdrawn their support from the exchange market and are permitting exchange on New York to fall, largely no doubt, with a view to making this market an expensive one in which to buy.

Since Europe is now heavily in our debt and is desirous of

incurring as little additional indebtedness as possible, and since most European countries are not ready to export manufactured goods and raw materials even to the extent of the pre-war volume, and are not in a position to ship much more gold in liquidation of trade balances, the only immediate recourse of the countries indebted to us is to reduce to the lowest limit possible their importations from all sources and in particular, those from the United States. The stern facts of their economic situation demand this.

MAINTAINING EXPORT TRADE, THOUGH NOT AN EXPORT BALANCE

Nevertheless, Europe must buy in this market large quantities of foodstuffs, cotton, lumber, hides, copper, and other necessary raw materials, and also certain classes of iron and steel products, machinery, etc. During the coming year these purchases will probably far outrun in value our purchases from Europe. How will Europe liquidate this unfavorable trade balance in addition to paying 500 or 600 millions of dollars in annual interest on her debt to us? How can we make this market a favorable market for Europe to buy in? There are several possible solutions of this problem, namely:

(1) We might invest largely in public-service and industrial enterprises in France and Belgium, either by putting capital into new enterprises or by purchasing the securities of established companies. Both countries will require immense amounts of new capital until their industries are restored and will probably look to the United States for much of it.

(2) We might increase our importations of certain raw materials or semi-manufactured materials. Since, however, we were accustomed to importing these commodities in large volume from Europe before the war, we cannot hope to increase their importation in any considerable degree.

(3) The liquidation, as formerly, through London of increased balances due certain of the possessions of Great Britain in their trade with us would operate as offsets. And an increase in our imports of jute, tea, etc., from India, of tin and rubber from the Straits Settlements, and wool, hides, etc., from Australia and South Africa would, therefore, be helpful. The proceeds of the

sales of these commodities really go in large measure to British capital and in the international exchanges operate as offsets in the account of Great Britain with us. Likewise the income from French and Belgian investments abroad would operate to bring up the items on the credit side of those countries. The exchange situation as between Europe and the United States would, therefore, be helped by our increased importation of the produce of the overseas possessions of Great Britain, France, and Belgium, or from countries in which they have large investments.

(4) Exports could be maintained more nearly at their present level if the flow were directed somewhat from Europe and more into other parts of the world, either in direct sales or in the form of investments. Little would be gained, however, so far as our trade balance with Europe is concerned, if our foreign trade activities in other markets deprived Europe of its customary trade in those markets. The most helpful activity would be by way of investment. Now that the United States is a creditor nation the tendency to make investments abroad will be more marked; in fact, since France and Belgium and Germany will not be in a position to make foreign investments for a number of years to come, and Great Britain's power to do so will be greatly diminished, the United States will be required by force of circumstances to become the great investing nation. This will merely accelerate a tendency well under way when the war broke out, for the field of our investment was then widening so as to include Chile, Peru, Argentina, and Brazil, as well as the nearer countries of Canada, Mexico, Cuba, Porto Rico, and the Central American countries.

(5) The resumption of travel in Europe will doubtless help to restore the balance since it is probable that the number of Americans desiring to visit Great Britain, France, Belgium, and Italy will be greater than ever.

(6) The remittances of Americans to relatives and friends in Europe will doubtless be far in excess of sums thus sent in the past, since there will be large demands on the generosity of the more fortunate kinsmen in the New World. This, too, will tend to restore the equilibrium in the trade balance.

(7) In the matter of payments to Europe on account of services, as for instance, freights and marine insurance on American goods,

it is hardly possible that the net outgo will be as great as before the war, since we are now less dependent on foreign ships and on foreign marine insurance companies. We cannot, therefore, look in this direction for any compensating factor in the trade balance.

INVESTMENTS IN EUROPE MOST IMPORTANT

Of all these possible solutions that of large-scale investments in European enterprise seems the most practical. A feasible method of financing purchases of machinery and equipment as well as raw materials for industrial plants damaged in the war, would be for the American manufacturers or producers furnishing these commodities, to arrange with their bankers or investment brokers to take in payment the bonds or preferred stock of the concern. Or it might be financed on a much larger scale in some such manner as the following: A syndicate of iron and steel manufacturers in Belgium, for instance, might pledge their joint resources and credit as security for loans from a syndicate of Belgian banks. The bonds or notes covering these loans might then be sold to a syndicate of American bankers, who would probably find a good market in the United States for securities of such high character.

Some satisfactory arrangement for financing the needs of Europe will doubtless be found. This means that it is only a question of time before Europe will resume heavy buying of a number of raw materials and many staple lines of manufactured goods, such as iron and steel products of various sorts, machine tools, factory equipment, and perhaps steel rails, locomotives, and cars. The importations of most lines of manufactured goods not urgently required for the physical reconstruction of damaged factories and railroads will probably be deferred for a considerable period.

The war, it is clear, has changed, at least temporarily, the character, extent, and direction of our foreign trade. While it has freed us from indebtedness to Europe, it has made us more dependent on other parts of the world for supplies of foodstuffs and many important raw materials. This dependence increases as our population grows, as our manufacturing industries become larger and more diversified, and as the costs of interior transpor-

tation in the United States become higher. In addition we shall find it necessary to receive interest payments on foreign investments and on loans to foreign governments largely in the form of foodstuffs, raw materials, and semi-and wholly manufactured goods. This will tend to facilitate importation and to make us more largely dependent on other countries than we now are. Our proud boast of economic self-sufficiency can be made with less assurance now than formerly.

The Vital Concern of Agriculture in Foreign Trade[1]

By Charles J. Brand

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THE signing of the armistice on November 11, 1918, marked the beginning of the end of one of the most active, not to say feverish, periods in manufacture and commercial pursuits the United States has ever witnessed. Producing industries of all kinds and the trades dependent upon them had been working at a high pitch which the sudden termination of the war ended, leaving these enterprises with complete organizations and production potentialities that naturally are seeking to find further expression. While domestic business activity is good, a surplusage of producing power exists beyond the absorbing ability of the domestic market. Hence we have an extraordinary interest in foreign trade which feels on the whole that something like the peak-load production of the past two years can be maintained.

As a fundamental proposition foreign trade is no more essential to the United States now than it was in ante-bellum days. This is true in reference to agriculture as well as other industries. Indeed, it is more true of agriculture for, relatively speaking, export trade in agricultural products has decreased progressively during the last fifty years. Since 1850 the foreign commerce of the United States has multiplied over ten times. At that time over 80 per cent of our exports were agricultural products. Official figures published in 1915 showed a reduction in value of the agricultural part of our exports to something over 47 per cent of the whole.

Home Market Largest and Best

There is a general inclination throughout the country to attach an importance to the development of foreign trade that may not be wholly warranted. At any rate we should certainly be rational in our attitude toward the question and not, as Mark

[1] This paper was read in Chicago on April 24, 1919, at the Sixth Convention of the National Foreign Trade Council.

Twain once expressed it regarding another matter, "try to get more out of an experience than there is in it."

The best and greatest market is the home market. It should first be developed in a thoroughly scientific manner, bearing in mind that the population of the United States has grown from a little less than 76,000,000 to a little more than 105,000,000 between 1900 and 1918, an increase of 29,000,000. This is more than the total population of what was once Austria. It should also be borne in mind that our increase since 1890 has been from less than 63,000,000 to the present population of 105,000,000, the increase of 42,000,000 representing a population greater than the French Republic. Brazil is of course the most populous of all our Latin American neighbors but her population is only about 25,000,000, which is less than we have gained since 1900.

The waste and disturbance of war have been such during the past four years that it seems likely that the demand for agricultural products in the raw and manufactured form to supply civilian needs, as well as for relief and reconstruction purposes, will take precedence over nearly all lines of export. The value of the agricultural products that went into the export trade in 1901 ($951,628,000) represented 65 per cent of the total value of all exports for that year. The demand for war-making devices and materials in 1917 was so great that the proportion in 1917 was reduced to 31 per cent of the total. During the same time the value of agricultural products imported grew from nearly $392,000,000, or 47.6 per cent of the total imports, to the value of nearly $1,404,000,000, or 52.8 per cent of the total imports.

Confining our attention to the more recent past, profound changes have taken place in the quantity of particular kinds of agricultural products exported during recent years. The exports of cattle decreased from 459,218 in 1901 to 18,376 in 1914; those of beef and beef products, so far as ascertainable, from 705,104,000 pounds in 1901, to 151,212,000 pounds in 1914. Pork and pork products decreased from a billion and a half pounds to less than a billion. Corn, wheat, flour and meal, expressed generally in terms of grain, decreased from 397,395,000 bushels to 156,315,000 bushels. Cotton and tobacco, on the other hand, showed a substantial gain between the years mentioned, although there was great fluctuation from year to year.

WHY EXPORT TRADE IS NOW MORE IMPORTANT

Before the war, agriculture's interest in the export trade was chiefly in its function as an outlet for surpluses. It served in this respect to relieve pressure on the domestic market. Production was not undertaken primarily for export purposes, so that exportation varied greatly with the surplus from year to year. So far as producers were concerned, at least, export trade was not regarded as an essential feature of their business, although the trade of course constantly sought export outlets.

The world war has wrought a change in this matter. Producers and other organizations have come to realize the importance of developing export trade. They are asking improvement in methods, expansion in the necessary shipping facilities, specialized services for particular products, such as suitable ships for transporting live-stock, properly equipped space in ships, particularly for American fruits, etc. Because of war conditions they have enjoyed some of the benefits of foreign markets and the competition which they afford, so that they have become interested in trying to hold a fair proportion of the largely increased trade, particularly with Europe. This is neither unnatural nor reprehensible, but is the outgrowth of the trade which came from their patriotic efforts to satisfy the needs of our associates in the war during its progress.

Agriculture is interested not only in the direct export of raw farm products, but it has a very great interest in the export of manufactures produced at home from farm products. Cotton and tobacco manufactures of all kinds, leather and leather products, and many foodstuffs, serve to swell the total of the nation's export trade by calling upon agriculture. It is estimated that in 1918, approximately $400,000,000 worth of manufactured articles, prepared from the raw materials of agriculture, went into foreign trade.

Normally, raw cotton is the largest single item in our foreign commerce. The approximate annual value of the part of the crop that is exported is $600,000,000. With the growth of imports from other countries, the national importance of cotton to our trade balances has been very great. Cotton has not enjoyed the protection of a governmental guaranty of price as has wheat; therefore fluctuations affecting the well-being of

millions of producers and laborers have marked the whole war period. A serious situation exists at the present time in the cotton belt, due to inability to find a market for the lower grades of cotton that constitute a part of every crop. Before the war, Germany and Austria took about 3,000,000 bales of our cotton. A relatively large proportion of their takings was made up of low grades. For four years now there has been a tendency toward accumulation of such qualities, so that at the present time, while Middling cotton is bringing a fair price, the lower grades are bringing so much less as to put them practically on the basis of a pre-war value.

Persons not familiar with the cotton situation are inclined to be quite critical of cotton prices. They should bear in mind that for practically two years Middling, the average grade, has in reality been bringing a premium, while all of the grades below Middling have been suffering discounts of great severity. Good Ordinary, the lowest grade of white cotton hitherto deliverable on future contracts, is now priced at least ten cents below Middling, whereas, through many years under normal conditions, its relation to Middling was only from one and one-half to two cents off.

The importance of cotton to the exchange situation and to our trade balances is such as to make this product a national and not a sectional issue. Formerly the cotton producer was even more dependent upon foreign trade than now. With the great increase of spindleage in the United States, home consumption of the raw material and export of manufactures have grown apace. Nevertheless, practically 50 per cent of the crop is still exported in normal years. Shipping conditions, foreign production, financing facilities, foreign stocks and consumption are all of decidedly vital concern to millions of our citizens who grow cotton and to additional millions indirectly dependent upon them.

The United States has always enjoyed a considerable export market for her grain crops. This trade developed in the face of distinctly adverse conditions, largely the outgrowth of our own lack of system and lack of uniformity in the grading of grain and its certification. The normal annual export of wheat before the war, based on a ten-year average, was about 110,000,000 bushels. With the acute need for food, the export of both wheat and flour, in terms of wheat, of the 1918 crop, are expected to be about

300,000,000 bushels. Needless to say, this great quantity will not be exported in future years, as high prices have stimulated domestic production in Europe, and the return of peace will result in a relatively greater satisfying of home wants by home production. Furthermore, this export was enjoyed by the United States in good part, because of the loss of tonnage occasioned by U-boat activities. In the future Argentina, Australia, Canada, India, Algeria and other wheat-producing countries will compete with us for their former proportion of the world's demand.

OBSTACLES TO EXPORTS IN THE PAST

In 1915, the Congress passed the United States Grain Standards Act, which requires the use in all interstate and foreign commerce of grades established by the United States. During 1916, Mr. Moomaw, the specialist in foreign market investigations of the Bureau of Markets, found in Europe a general prejudice against American grain. With few exceptions, importers expressed a disposition to buy such grain only when they could not purchase their supplies elsewhere, or when American grain was decidedly cheaper. This situation arose partly from natural causes. The United States is an enormous consumer of her own products, a condition which naturally results in keeping at home a relatively large proportion of the best qualities of any product. The artificial factors in the situation were absence of uniform grades and enforced use thereof, lack of proper facilities for conditioning grain, willingness on the part of some traders to ship against their export contracts grades that would not satisfy domestic contracts, and lack of knowledge of the proper conditions for successful shipping.

Broadly speaking, commercial competition, with unrestricted markets and freedom of transportation, produces a condition under which there can be but one price at the same time, for the same quantity and quality, of the same commodity, in the same market. Any notable variation from this condition will result in temporary disturbance. A lower price by one enterpriser will tend to result in the exhaustion of his stock in advance of other available stocks. The highest priced stock of any particular commodity will, other things being equal, be the last one to go into consumption.

In the development of our export trade, it is important to keep

such principles and facts as these in mind. It is true that special conditions such as tariffs, financial stringencies, lack of transportation facilities, monopolization, control, etc., may modify to some extent at any time the present operation of these principles. Nevertheless, except in so far as their operation is artificially interfered with, they are always effective. Labor goes where wages are highest. Manufacturers engage in the production of goods, or classes of goods, which promise the highest relative profit. Capital seeks investment where interest rates (with safety) are highest. Buyers generally, the world over, no matter what they seek, go where they can supply their needs at the lowest prices.

PRICES AND QUALITY BOTH IMPORTANT

The first requisite to success, therefore, is that prices be relatively reasonable. This fact, I believe, should particularly be borne in mind at the present time in the marketing of the remainder of our 1918 cereal crop and in the disposal of the huge crop that is promised by present indications for the current crop year.

Producers of grain, in all of the important growing areas, are keenly interested in retaining such part of the present export trade as is possible, having in mind not only the immediate but more distant future. To do this, prices must first be right; but then the business can be held only upon condition that the exporters deliver to Europe grain that compares favorably with that received from other holders. Trade practices also must be conformed to, as far as is compatible with the interests of a producing country, to the desires of the importers. Under the Grain Standards Act, the importer, through his representative in America, can secure, first, inspection by inspectors licensed by the United States government; thereafter, if the inspection itself seems unsatisfactory, they may appeal and have the true grade determined by the representatives of the government itself through the offices of grain supervision of the Bureau of Markets. The finding in such an appeal, issued by the secretary of agriculture, has the value of *prima facie* evidence in all of the courts of the United States.

A widespread interest is manifest among stockmen as to the possible demands in Europe for livestock and livestock products during the readjustment period. In order that they may enjoy

the advantage of the demands and in order to assist in the reconstruction of European herds, they want to know the extent of the possibilities. They want to know if quarantine regulations will be adequately modified, if ships and credits will be available. Owing to the extreme difficulty in securing space and the high rates charged, stockmen are interested to know what the shipping board will be able to do for them. The only rate which the bureau has been able to secure from private lines, is $150 per head from New York to England. Only one line would quote a rate at all. Others stated they are not interested in this class of cargo.

The breeders of pure-bred stock also are much interested in the possibilities in South America. Brazil seems to be a particularly attractive field and is offering free entry and other inducements to encourage the grading up of its enormous herds of low grade native stock. America has imported pure-bred stock extensively from Europe, and it is significant that now instead of looking so largely to foreign sources for a supply, the industry is meeting home needs and beginning aggressively to look for foreign markets. In connection with livestock products, it is of interest to point out the need of continuing the largely increased export trade in condensed milk. Due to the war demands for concentrated foods, the condensed milk industry expanded enormously during the war. Old plants were increased in capacity, new ones were constructed, and breweries even turned to the production of condensed milk in lieu of beer. The foreign demand was abnormal and inevitably will fall off, but the plants and equipment represent a permanent investment which must be protected in so far as possible. The producers therefore are keenly interested in holding the war trade in so far as possible and in developing all possible new markets.

Mention has been made of the chief lines of interest to agriculture. The fruit and vegetable growers, the poultry producers, the honey and nut producers, the dairymen and the canners are all alive to the possibilities and seek information and assistance in the readjustment of the export trade and the development of new markets.

SERVICES RENDERED BY THE BUREAU OF MARKETS

In order to safeguard agriculture's interest in foreign trade and meet the growing demand for a specialized government service

in connection with this trade, the Bureau of Markets has undertaken to develop special facilities for investigating foreign markets. It has been found necessary to extend many of our lines of work beyond the American seaboard. A Division of Foreign Marketing has been established as a medium through which to carry on the investigations and to coöperate with other government agencies, such as the American Consular Service and the Bureau of Foreign and Domestic Commerce. A special effort has been made to avoid duplication of work and arrangements have been made to that end.

As a means of supplying producers and their organizations and shippers with current information, the bureau recently inaugurated a weekly circular called "Reports on Foreign Markets for Agricultural Products," and, judging from a large number of letters received from all parts of the country, the reports are timely and fulfill a useful purpose.

The following outline sets forth in brief form the general subjects of investigation, the specific activities, and the organization of the foreign trade work now in progress or to be undertaken by the Bureau of Markets as soon as conditions allow. All of the activities are regarded as important, but sufficient funds and facilities will not be available to proceed with them simultaneously or in the immediate future. They will be undertaken, therefore, in the order of their importance as funds become available.

1. The supply of agricultural products in foreign markets and the export surplus in the principal foreign countries with which the United States competes.
2. The consumption and consumptive demands in the principal importing countries.
3. The market preference as to kinds of products and the requirements as to grading, packing, and branding.
4. The channels of trade through which the products pass and the business practices involved.
5. The methods and costs of marketing both American and foreign products.
6. Methods of financing export trade in agricultural products.
7. The export forwarding, storage, transportation and insuring of agricultural products.

8. The economic conditions influencing the marketing of American agricultural products in foreign countries.

9. Trade opportunities for American agricultural products.

SPECIFIC ACTIVITIES

1. *Grain and Grain Products*

a. Continuation of investigations of the physical condition of grain in transit to overseas countries for the purpose of inducing improved stowage methods and thereby reducing the extensive loss and dissatisfaction caused by the old methods.

b. Continuation of efforts to inform fully the grain importers of foreign countries as to the benefits and advantages which they may derive from the administration of the United States Grain Standards Act. The importance of this point will be appreciated when it is understood that before the war the majority of European importers would not buy American grain when they could buy elsewhere. The administration of the act, with which the Bureau of Markets is charged, establishes a new and very satisfactory basis of grade and inspection, and if properly brought to the attention of foreign buyers it will serve to secure for the American grain industry a far better position in foreign trade.

c. An investigation of the marketing of American grain and grain products in European countries as to the competition encountered, the trade practices involved, the respects in which the American trade can be improved, and the possibilities of developing markets in Europe and elsewhere for grain products and by-products.

d. An investigation of foreign markets for American seeds. The importance of this work is greatly enhanced on account of the Russian situation, that country being a large exporter of seeds in normal times. Seed marketing experts were sent to Europe early in January for the purpose of studying the demands and methods of marketing.

2. *Cotton and Cottonseed Products*

a. Continuation of investigations and activities looking to the universal adoption of uniform cotton standards.

b. Periodical investigations and reports on the world's supply, consumption, and consumptive demands of cotton.

c. Continuation of work looking to the development of foreign markets for American-grown Egyptian cotton, the production of which is rapidly increasing in the Southwest.

d. An investigation of the business methods of European cotton merchants and their exchanges, encouraging wherever possible direct trade relations in purchase, arbitration, and exchange.

e. A study of foreign markets for cottonseed products as to the supply, demand, and possibility of developing the markets for the refined products, including a study of trade practices and methods.

3. *Livestock and Meats*

a. Continuation of the survey of the livestock situation in Europe as to the supply and possible demands upon America during the readjustment period, giving assistance to American breeders and exporters in supplying the demands. Two experts, representing the Bureau of Markets and the Bureau of Animal Industry, were sent to Europe early in February for an extensive investigation of the livestock, meat and dairy situation.

b. The dissemination among European importers and breeders of information relative to the American livestock industry as to sources of supply of the various breeds, and other information which may be of help to them in making purchases in America. Information is now being assembled for this purpose.

c. The accumulation and dissemination of information relative to world trade in livestock and the position of the American industry in the trade.

d. A survey of the extent to which Europe may require importation of meat and meat products during the next few years until the European herds may be increased to normal.

e. Periodical surveys of the meat supply and market situation throughout the world, with particular reference to the conditions in Australia and the Argentine which are large sources of supply.

4. *Dairy and Poultry Products*

a. A study of the possible extent of European demands for dairy products during the period of readjustment. Now in progress in connection with the livestock and meat investigations of the bureau.

b. An investigation of the methods under which American dairy and poultry products are exported and marketed in the

foreign countries, with particular reference to the medium through which the products are handled.

c. Periodical surveys of the conditions in the world's trade in dairy products.

d. A study of the possibilities of developing foreign markets for American dairy and poultry products and the best methods of procedure to be followed by American producers and exporters.

5. *Fruits, Vegetables, Nuts, and Honey*

a. Continuation of investigations of foreign markets for fresh and dried fruit, with assistance to fruit shippers in reconstructing the former substantial trade with Europe and in developing export outlets in other directions. Bulletins to be issued in the near future giving results of fruit market investigations recently completed in the Far East and Australasia.

b. Continuation of investigations and experiments in the physical handling of fresh fruits and vegetables in transit to overseas countries, looking to improvement in methods of stowage and reduction of the extensive loss incurred from deterioration on the steamers.

c. A study of the possibilities of expanding the foreign trade of the United States in vegetables, both fresh and dried, including potatoes.

d. An investigation, in close coöperation with the Bureau of Foreign and Domestic Commerce, of the export trade in canned fruits and vegetables and vegetable oils, as to the possibilities of developing the export outlet, the methods of marketing and the demands of foreign countries.

e. An informational service on foreign markets for nuts and honey.

6. *Tobacco*

The accumulation of information as to the stocks and consumption of leaf tobacco in foreign countries, and as to the condition of the markets for the several classes, with studies of marketing and distributing methods.

7. *The Export Forwarding and Transportation of Agricultural Products, and Marine Insurance*

a. An investigation of the methods of forwarding agricultural

products to overseas countries as to the steps which must be taken by the shippers in securing space and arranging for shipments.

b. The methods of steamships in loading and discharging cargoes and in adjudicating and settling claims for damage.

c. Collection and information as to ocean freight rates on the various agricultural products both from the United States and from foreign countries to the principal foreign markets.

d. A study of marine insurance for agricultural products as to the extent of risks assumed, the rates charged, and the possibility of securing insurance to cover risks heretofore not covered.

8. *Assistance to Producers and Exporters in Developing Foreign Markets*

a. The organization and dissemination of useful information among producers, their organizations, and exporters, relative to foreign markets, trade opportunities, trade mediums, methods of marketing, and the other subjects investigated.

b. The encouragement of special production and approved methods of grading, packing and branding to meet peculiar foreign demands.

c. The encouragement of foreign marketing organizations among the producers under the provisions of section 6 of the Clayton Act, with assistance to the producers in forming such associations.

d. The encouragement of foreign marketing organizations among exporters of agricultural products under the provisions of the Webb-Pomerene Act, with assistance to exporters in forming such associations.

ORGANIZATION AND FACILITIES FOR CARRYING ON THE WORK

1. *In the United States*

a. Foreign trade specialist in charge of division, with headquarters at Washington.

b. Investigators for work among exporters, forwarding agents, steamship operators, port corporations, to secure the large amount of information which is available among these firms relative to the foreign marketing of agricultural products and to assist in the improvement of methods and in the solution of export problems.

c. Research, statistical and editorial assistants, including translators, for assembling from foreign publications information for

use in answering inquiries and preparing publications relative to foreign markets and world trade in agricultural products.

d. A publication to be developed as soon as practicable, as a means of disseminating useful information relative to foreign markets and promoting the interests of American agriculture in world trade.

e. The assistance of the bureau's organization as a whole, with the extensive staffs of commodity experts, branch offices, and market reports in the various lines.

2. *For Foreign Countries*

a. Several agricultural trade commissioners, as permanent representatives in Europe, with assignment to definite posts and territories, providing them with ample facilities for the performance of their duties.

b. Special investigators, to be sent out from time to time as in the past, to make investigations in specific lines as the needs of the producers and exporters may require.

c. Coöperative assistance of the American consular service and the Bureau of Foreign and Domestic Commerce.

Space does not permit more than a brief mention of agriculture's interest in foreign trade, and the plans and work of the Bureau of Markets to serve that interest. It may be fitting to state that the exporters, those who have nothing to do with the question of production or of initial distribution to market centers or the ports of the country, can be of inestimable service in promoting agriculture's interest in foreign trade. They can do much to find new markets, to improve handling and shipping facilities, to keep up the price to the producer and keep down the cost to the foreign consumer and to find and develop new markets. As a rule the producers are unable to participate directly in export trade. Except where they may be effectively organized, they must depend entirely upon inland and export merchants to improve and develop the export outlet. In view of the vast extent of the industry both as to investment and production, with what it entails to the prosperity and happiness of a large percentage of the population, the merchants, or middlemen, as they are called, have a most important mission to perform aside from the business of money making.

Commercial Dehydration: A Factor in the Solution of the International Food Problem

By S. C. Prescott and L. D. Sweet
Division of Dehydration, Washington

THE world war through which we have just passed has awakened us to the importance of the theories of Malthus, long since expressed. In days of peace, with new countries opening up and extending their agriculture, new and improved methods of food handling and transportation we were inclined to regard the dangers of food shortage or starvation as imaginary and impossible, and to believe that our system of crop production and marketing, while not fully utilizing the scientific knowledge available, were at least sufficient to safeguard us from hunger or serious economic disturbance. Now the awakening has come, and we appreciate more fully than ever before the perils which may threaten through waste, unscientific methods and an improperly coördinated regulation of supply and demand.

The four and one-half years through which we have just passed have, because of the war, caused us to study deeply the problems of food supply and food control. It has fallen to this country to be the storehouse from which enormous supplies of foods have been withdrawn for the use of the fighting forces and the civilian population of Europe. This demand upon our resources has been very largely for cereals and especially for wheat. Because of the necessity for sending enormous quantities of breadstuffs to the Allies, the conservation of food supplies has been studied with particular acuteness, and these studies have had their fruition in the movement for war gardens and for more careful preservation by canning, and particularly in the stimulation of drying as a means of protecting foods against spoilage and preserving them for future use.

Dehydration, dessication, or drying as applied to foods may be defined as the process of removal of surplus water without destruction of the cellular tissues, or impairment of the energy values. Since practically all foods except the ripe seeds of cereals, legumes,

and a few other food plants contain a large percentage of water and as a result are of relatively short keeping quality unless conserved by special means, it follows that the rapid, regulated evaporation or drying of such foods will add greatly to the world's stock and in a form which is capable of easy storage, favorable transportation and universal employment.

DEHYDRATION AN OLD PROCESS

Dehydration is not a new art for drying has been known for hundreds of years and is probably the oldest method of food preservation which the human race has employed. In our own country it was used in the early colonial days for both vegetable and animal foods. Massachusetts colonists dried corn after it had been cooked, the product being known as samp. As soon as fruits were produced, these, and especially the apple, were also dried in considerable quantities. Along the coast the drying of fish became an important industry, and throughout New England to the present time will be found the application of this process of food preservation as a sort of local or primitive industry. In other parts of the country other vegetables and fruits and meat products were dried. Peas and sweet corn may be mentioned as examples of the former, while along the Pacific coast the long sunny period lends itself particularly to the drying of prunes, raisins, and other fruits. In the arid regions of the interior the Indians, and later the early settlers, dried their beef or buffalo meat by cutting it into thin strips and hanging them up for the sun and wind to remove the excess moisture and sear over the outside with a protective coating which would prevent infection and spoilage. This was known as jerked beef. Thus, long before the advent of canning on an extensive scale, the process of drying had been utilized in this country. In other countries it had doubtless been used for hundreds of years.

Dried fruits have been used in America for many years and have become an important part of our food products. On the other hand, dried vegetables have, until recently, been prepared only on a small or domestic scale, probably owing to the plentiful supply of fresh materials. The movement due to the necessity for increased conservation of foods has stimulated experiments along this line, especially during the past two years, with the

result that many foods formerly never kept in the dried condition are now suggested for domestic use, as articles of commerce on a large scale, and as items in the food supply of our Army and Navy, in the large camps and for overseas shipment to our own troops and to our Allies. The preparation of these so-called "dehydrated" foods is now being planned extensively by numerous manufacturers, and a great increase in output for the present year is suggested.

That this is not a really new and untried form of subsistence is evident when we recall that such foods have been used by explorers, in the tropics, in our own armies, and in the armies of other nations. During the Civil War dessicated products were used quite extensively especially as a means of combating scurvy among the troops, and numerous reports of medical officers mention the use of concentrated soup, dessicated vegetables and dried apples and peaches as additions to the regular ration issued as a safeguard to the health of the men. During the Boer War these foods were supplied to the troops in considerable quantity with good results. At the outbreak of the present war large orders were placed by the British authorities, and these foods have been constantly supplied to them. Millions of pounds of dried potato and other vegetables, and of mixtures of vegetables to be used for preparation of soups and stews have been sent across the Atlantic from Canada and the United States.

While vegetables and fruits of all kinds may be prepared in dehydrated form, this report deals chiefly with those products which appear most available as army supplies, as potatoes, turnips, cabbage, onions, carrots, tomatoes, beets, and spinach, and the soup mixture commonly spoken of as "Julienne."

DRYING OVERSHADOWED BY CANNING

Approximately 100 years ago a new method of food preservation was introduced into America. This was the process of hermetically sealing in air-tight containers and subjecting to heat. It was brought to America from England, where it had been practiced for about fifteen years. The first patent on the preservation of food in air-tight containers was granted about 1806 to an Englishman, Saddington, and another in 1810 to a Frenchman, Appert, who independently discovered the method and utilized

it in France. This process was brought to America by William Underwood, who, after tramping over the whole eastern section of the United States, finally settled in Boston and established a company for preserving foods by his process.

The process of canning was at once seen to be so simple and so applicable to many kinds of food materials that it apparently completely overshadowed the simpler process of drying. This was especially the case after the introduction of tinned "cans." Furthermore, canned foods could be transported into any climate, be left exposed to the action of sun or rain, and so long as the container was intact, the food, if perfectly sterilized, was properly conserved. The Civil War with its great requirements of preserved foods for the armies gave a big impetus to the business, and later improvements in the methods of sterilization and in can-making greatly increased its scope until we have the enormous industry of today.

While this has been going on, there has been also a tremendous development in the preservation of foods by cold storage and by other physical means, such as pasteurization, salting, etc. With all the expansion along these lines, drying was practically forgotten, except on a domestic scale and in the dry valleys of the Pacific slope, where the fruits could be preserved very conveniently by this method by action of the sun.

The drying of potatoes and other vegetables on a semi-commercial scale was first done apparently by A. F. Spawn, an American resident in Australia in 1886, but the industry did not make a business success.

At the time of the discovery of gold in the Klondike, the rush of miners to that district created a demand for foods which were light and could be easily transported, and dried potatoes imported from Germany were sold the miners in considerable quantity. These were restored for use by soaking in water and could be served in the form of hashed or fried potatoes, and while they were not extremely palatable, they did supply a quickly prepared and energy-giving ration for the hard-working miner.

Noting the success of the German product, some attempts were made to manufacture dried potatoes in Oregon and Washington, but these were far from successful at first, because the manufacturers used sulphur as a means of preventing the darken-

ing of the slices of potatoes before drying, the amount of sulphur being entirely too great, with the result that the taste of the potato and the odor when cooking was very objectionable. This, however, was shortly overcome, and dried potatoes were manufactured in this country, though even this was far from modern dehydration.

When we speak of "modern" dehydration we mean foods which either with or without previous treatment have been subjected to the action of carefully regulated currents of air in which the temperature and humidity are both properly controlled, a process which results in the food product gradually losing water, but without giving up its color or flavor or having its cellular structure impaired. The modern dehydrated product, therefore, will reabsorb water, swelling to its normal size and appearance, and, when cooked, will have essentially the flavor, appearance, and odor of freshly cooked material made from the fresh vegetables. The early products were far from meeting these requirements, and the same is true of many made at the present time. When the White Fleet went on its famous voyage around the world, a large quantity of dehydrated vegetables was purchased for the use of the fleet. These were so objectionable as a result of improper methods of dehydration, which had produced blackening and scorching, that they were practically uneatable and hundreds of pounds were thrown overboard. Not only was there a considerable loss at that time, but there was also created in the minds of the officers of the Navy a strong prejudice against any foods prepared by this method, a prejudice which has existed until the present day. However, progress was bound to come, and the best dehydrated products of the present day will meet every requirement which it is desired to impose upon them as regards appearance, flavor, and quality.

THE DRYING INDUSTRY STIMULATED BY WAR

War seems to be a great stimulator of methods of food preservation. Just as the Civil War stimulated the canning industry, so the Boer War, and, to a great extent, the European War, stimulated the drying industry. During the Boer War the British Army in South Africa was supplied with thousands of pounds of dried vegetables mixed so as to form the basis for a nutritious and quickly prepared soup. Much of this material

was manufactured in Canada and shipped from Canadian or American points to South Africa. With the closing of the war, one of the manufacturers was left with several thousand pounds of such a soup mixture for which there was no local sale in the domestic markets, possibly owing to the fact that the average consumer much preferred to buy vegetables in the fresh state, and possibly because the mixture was not ideal from the standpoint of flavor and palatability. However, this material was not thrown away, but was put up in barrels which were carefully paraffined and stored away. After the outbreak of the European War in 1914, they were sent to the British Army and utilized in the preparation of soups just as the bulk of the lot had been used fifteen years before. I cite this as an example of the keeping quality of dehydrated products, provided storage conditions are satisfactory, and that moisture and insect pests are prevented from gaining access to the food substances.

BEGINNING OF THE DRYING INDUSTRY IN THE UNITED STATES

By 1910, a number of small factories had begun to manufacture the dehydrated vegetables and soup mixture in the United States. They had not proved highly satisfactory from the commercial standpoint. However, the soundness of the fundamental principle was recognized, and improvement was then merely a matter of applying scientific methods and perfecting details. With the outbreak of the world war came a demand for more of these products for the armies abroad, and thousands of tons were sent. With our own entrance into the war came the question of supplying these materials to our own forces. At first there was merely no objection. Then came a willingness to purchase a small amount as an emergency supply of food materials, and finally, during the past year, there has been a demand for large quantities of these dried vegetables to take the place of the fresh ones which could not be obtained in sufficient quantity in England and France. The result is that during the past twelve months many thousand tons of dried vegetables and soup mixtures have been purchased for the use of the American armies.

Let us see how our opponents in the war have taken advantage of this process. In 1898 there were in Germany only three small drying plants with an output large enough to be worth mention-

ing. This method of preservation may be regarded as apparently successful, for in 1906 the number of plants in operation had increased to 39, in 1909 to 199, in 1914 to 488, and in 1916 to 841. In addition to this, 2,000 breweries were utilizing some portion of their equipment in the drying of food materials. It is stated that in 1917 about 1,900 plants were in operation, or under construction, and the total quantity of potatoes alone dried in Germany was more than three times the total crop of the United States. These facts will explain one of the reasons why Germany was able to maintain her food supplies during the war. The German product was not as good as the best American product of today, and we have little reason to doubt, therefore, that if insistence is laid upon the high quality of the raw material and the use only of the best methods, the dehydrated vegetables industry in the United States will develop at a rapid rate and become a powerful factor in the conservation movement and in the stabilization of agricultural crops.

DEHYDRATING SYSTEMS IN THE UNITED STATES

There are now in this country probably twenty-five small plants operating on dehydrated vegetables. Several methods are in use, but in all the fundamental intent is the same, namely, to remove the excess of water so as to obtain a product which will keep for a long period of time, which will not undergo spoilage as a result of microbic action or other form of chemical change, and which will conserve the food value of the materials intact. The basic principle of dehydration is extremely simple, since it implies only the removal of the water contained in and between the cells of the food substance, with the result that the stored food materials, salts, etc., are concentrated in direct ratio to the water evaporated.

Since only replaceable water is taken away, it follows that the nutritional value of the food has not been depreciated. Moreover, if the process is applied while the vegetables and fruits are still in a state of absolute freshness, the special flavor-giving compounds are apparently conserved intact, hence the "fresh" flavor which is characteristic of the best products made by this method. For the finest grades of dried products the rate of evaporation should be such as to bring about the dehydration of the cell-contents without rupture of the cell walls.

By this means the weight of the food is reduced from 80 per cent to 90 per cent, depending on its character, and the bulk is in general diminished to one-fourth or one-sixth of the original volume. By a suitable process of compression the nearly dried material may be brought to a very compact form. Not all the water is driven off, there remaining generally from 7 to 12 or even 15 per cent. It is an advantage to secure quite thorough drying, and in general the water content of dehydrated vegetables should not exceed 10 per cent by weight. Complete removal makes the absorption of water in preparation for cooking extremely slow, while too high a percentage increases weight unduly and also renders the foods more subject to slow deterioration, due to action of moulds, bacteria or intracellular changes, or to slow oxidative changes.

The method of preparation affects in some measure the quality of the product. If the drying is begun at too high a temperature or goes on too rapidly, certain physical or chemical changes seem to take place in some kinds of vegetables whereby the water-absorbing power is impaired. If the initial temperature applied to the fresh (wet) material is too high, a process analogous to scalding or scorching results in some instances. In drying vegetables, therefore, the proper principle seems to be to subject the fresh material to air of relatively low temperature (100 to 120 degrees) and relatively high humidity, and to bring it gradually to a high temperature and low humidity. The specifications for dehydrated foods might well be so drawn as to require the applications of this procedure. The methods now in use may be classified as follows:

1. *Tunnel Systems.* These, as the name would imply, consist of long chambers or tunnels into which the prepared vegetables are introduced on screens or racks and through which a strong current of dry air is blown. There are a number of slight modifications in the arrangements of the screens and in the method of heating and driving the air, but in the majority of cases the heat is supplied by extensive coils of steam pipe, and the air is forced through by means of powerful fans. In some instances the racks holding the vegetables are placed on trucks which run on tracks, so that the material is introduced at one end and delivered in dry form from the other end. In other cases the tunnels have side entrances

and the trays are inserted and removed by hand. The weak point of the tunnel system lies in the fact that there is not absolute control of the physical conditions and as a result many vegetables, especially potatoes, are likely to be overheated and scorched, and more or less broken down in their cellular structure.

2. *Kilns.* The second type of plant may be described as kilns. These are based on the construction of the hop kiln as employed in California and Oregon and to some extent in New York State for the drying of hops and the evaporation of apples. They consist essentially of square chambers with sloping roofs and perforated floors, heated from below by means of stoves or furnaces. The vegetables to be dried are spread on the floor to a depth of four to six inches and the hot air from the stove passes up through the layer, taking away the moisture, which is conducted from the chamber through a ventilator in the roof. The material on the floor must be stirred up, or turned over, from time to time, and this is ordinarily accomplished by men with shovels. The products of the kilns are rather varied in character. Some are quite satisfactory, while on the other hand, others are very much overheated, or may go to the other extreme and be underdried. A lack of uniformity is therefore likely to be found in products of this method.

3. *Vacuum Process.* A third type is the vacuum process, which consists of closed chambers with large numbers of shelves heated by steam and with a greatly reduced atmospheric pressure. By the constant application of the vacuum to the process the water vapor is removed and the material dehydrated. This process gives excellent results for many kinds of products, but is rather severe and tends to break down the cellular structure.

4. *Special Machines.* Special types of chambers or machines have been invented and are now in use in a number of places, the air passing through the chamber being conditioned so as to bring about a carefully regulated drying. Other special types of machines force the rapidity of drying, but have not the careful regulation which seems to be essential in the preparation of the finest products. As a result, therefore, it may be stated that only in those processes where we have the practically perfect control of temperature, humidity, and rate of air flow do we get products which will retain their color, appearance, and flavor,

and when soaked in water will return to approximately the normal appearance. If the temperature is too high, overcooking takes place. If it is too low, the evaporation is insufficient and changes are likely to follow in the partially dried material. If it is too dry and too hot, destruction of the cellular structure is practically sure to follow. It is seen, therefore, that modern dehydration means the scientific control and coördination of the three factors of air, temperature, and moisture.

In England and France dehydration has been practiced, and factories are now in operation. The demand for these foods has, however, required large importations from Canada and to a lesser degree from the United States. In fact, it may be stated that this method of food preservation seems destined to be the next big advance in the development of our food industries.

ADVANTAGES OF DEHYDRATION

The advantages of dehydration are almost too obvious to require extended statement. Most evident of all is the loss in weight. All the vegetables in common use contain from 65 to 95 per cent of water. The dehydrated product made from these vegetables should contain from 5 to 10 per cent of water. There is, therefore, a very large reduction in weight and consequent saving in the transportation charges, which in general are based upon weight.

Similarly, there is a loss in bulk amounting to from 50 to 80 per cent of that of the raw material. The importance of these factors to railroads in times of congestion such as we have just passed through, or to ships in overseas service, is very evident. In sending food to our armies abroad, one ship could easily carry the vegetable requirements which in the green or fresh state would take from ten to twenty-five ships.

From the standpoint of agriculture the greatest advantage of dehydration undoubtedly appears in the stabilization of crops and the conservation of materials. Under the present conditions we are confronted by either a feast or a famine. If we consider potatoes as the most typical root crop, it is a matter of experience that a year in which we get a very large harvest and consequently low prices is likely to be followed by a lean year with a small crop and high prices. This pendulum swing goes on decade after

decade. With dehydration the excess of the years of great yield can be stored up and made available in the following years when prices are higher and the crop much smaller. After a short time this would tend to equalize the amount of planting, and, other things being equal, to give us year by year a sufficient quantity of food materials at normal prices.

The second great advantage is in the conservation of food materials. It is estimated that over 50 per cent of the fruits and vegetables grown in this country now never reach the consumer, as a result of poor transportation facilities, irregularities in marketing, or other causes. By making use of the process of dehydration, the second-quality materials could be preserved by drying, and made available for human food. For example, potatoes of class 2 and 3 (culls) could be used for the manufacture of dehydrated potato and potato flour, a product which has not yet received in this country the attention which it deserves, but which is now being manufactured to some extent in a number of different parts of the country.

A third factor of importance in the relation of dehydration to agriculture lies in the fact that a better diversity of crops can be secured, and as a result of this there will be a good variety of the vegetables which are the equivalent of fresh materials available to poor and rich throughout the year. This means better feeding for the people at large, an evening up of prices, and the prevention of famine or great food shortage as a result of poor crops in any particular location.

The general advantages of this method of treatment for vegetables and fruits maybe summarized as follows:

a. Possibility of utilizing much food now wasted owing to low prices at time of production or difficulty in marketing;
b. The plants for treatment can be located at centers of production and dehydration carried on while the food material is in prime condition;
c. Saving in cost of transportation in dehydrated form due to less weight and bulk;
d. Increased keeping qualities;
e. Nutritional values fully conserved;
f. No loss by crushing or spoilage;
g. Uniformity of quality;
h. Saving in cold storage charges;
i. Saving in tonnage for overseas and transcontinental shipment;
j. Foods require only soaking before cooking;
k. Surplus of one season or locality made available at another time or place.

From the standpoint of army subsistence these general advantages imply:

a. Lower cost of actual food units;
b. Lower cost of transportation;
c. Guaranteed keeping quality;
d. No loss by freezing or spoilage;
e. Saving in storage;
f. Wider range of vegetable foods and consequently
g. Generally improved diet.

While experiments on the best conditions for storage and packing are still being carried on, it is known that these products will retain their good qualities for long periods and under widely different conditions, and that when properly prepared they have the appearance and flavor of fresh materials to a marked degree.

They also seem to possess the essential special properties of substances which render fresh vegetable foods so desirable as antiscorbutics and growth promoters. Trials on both large and small scale at hospitals, training camps and in hotels have led to the conclusion that these foods are especially satisfactory in these practical tests although comment on all has generally been favorable. Distinctly satisfactory reports have been received from the Walter Reed Hospital where at the suggestion of the Food Division, the vegetables were served in the hospital mess and the officers' mess, and from the Medical Officers' Training Camp, Fort Oglethorpe, where the soup mixture was issued for a week or ten days without the knowledge of the consumers, and the verdict was unanimous that the soup during this period was superior to that served hitherto.

The disadvantages in the use of these materials are few and of minor importance. The principal one seems to be that a rather prolonged soaking previous to cooking is necessary for the best results and that slightly longer cooking than with fresh vegetables is required. An intelligent cook quickly learns the treatment essential to ensure the fresh flavor and palatableness which are attainable by proper handling.

REDUCTION IN WEIGHT AND BULK OF VEGETABLES UPON DRYING

The actual reduction in weight obviously depends on the degree of dehydration effected. The following figures have been ob-

tained from a variety of sources and are reasonably reliable although they have not been checked by our own analyses:

String beans	10.4	lbs.	fresh	produce	1	lb. dried.
Spinach	13.3	"	"	"	"	"
Sweet potato	4.6	"	"	"	"	"
Beets	7.1	"	"	"	"	"
Onions	11.4	"	"	"	"	"
Cabbage	12.0	"	"	"	"	"
Turnips	8.8	"	"	"	"	"
Tomatoes	13.3	"	"	"	"	"
Carrots	6.6	"	"	"	"	"
Potatoes	4.4	"	"	"	"	"

If dried to a moisture content of 8 per cent the following approximate weights of dried material should be obtained per ton of fresh material:

Beans, green	250 lbs.
Cabbage	215 "
Carrots	292 "
Corn (green)	465 "
Lettuce	114 "
Peas (green)	350 "
Potato, white	450 "
Potato, sweet	513 "
Spinach	166 "
Tomatoes	125 "
Turnips	225 "

Data on the reduction in bulk are less easily obtained, and vary greatly since the products are more or less subject to compression in packing. The importance of this will be later mentioned. A few figures are quoted:

String beans	reduced	to	$\frac{1}{8}$	original	volume.
Spinach	"	"	$\frac{1}{8}$	"	"
Onions	"	"	$\frac{1}{8}$	"	"
Tomatoes	"	"	$\frac{1}{15}$	"	"
Beets	"	"	$\frac{1}{10}$	"	"
Potato, white	"	"	$\frac{1}{3}$–$\frac{1}{4}$	"	"
Potato, sweet	"	"	$\frac{1}{2}$	"	"

A more definite unit of measurement for these dried foods is the weight per cubic foot. Expressed in this way the figures are not always in exact agreement owing to differences in the percentage of water. As representative of the product in general,

the following figures are given, the material being loosely packed in cartons or barrels:

Bentz Product	Lbs. per cubic foot
Potatoes	24
Carrots	18.7
Turnips	19
Cabbage	11
Onions	11
Soup mixture	20
Horst Product	
Potatoes	14–15
Onion, steamed	9.75
Turnips, steamed	10–11.6
Turnips, unsteamed	9
Brussels sprouts	10
Carrots, unsteamed	15
Carrots, steamed	15.75
Cabbage	8.25
Beans, white, partly cooked	26.25
Soup mixture	15

An examination of several different makes of dried potatoes, prepared in a number of forms, has given me the following results:

Maker	Form	Lbs. per cubic foot
Dominion	Sliced	21
Chilliwack	Shredded	20.4
Pitcher	Sliced	18.3
Pitcher	Granulated	25.8
Bentz	Cubes	24
Horst	Quartered	16

The practical importance of this matter lies in the fact that in the loosely packed form the weight per shipping ton of 40 cubic feet is relatively low, and while a considerable saving in freight charges is to be secured by sending the dried rather than the fresh or canned material, it seems possible to make a still further saving in this respect.

The following figures express the weights of dried material per shipping ton (40 cu. ft.):

String beans	409	lbs.	equal	to	about	4,000	lbs.	fresh	material.
Spinach	125	"	"	"	"	1,650	"	"	"
Onions	400–450	"	"	"	"	4,000	"	"	"
Turnips	760	"	"	"	"	7,000	"	"	"
Carrots	481	"	"	"	"	3,500	"	"	"

Cabbage	265	lbs.	equal	to	about	4,200	lbs.	fresh	material.
Potato, slices	700	"	"	"	"	3,000	"	"	"
Potato, cubes	960	"	"	"	"	4,000	"	"	"
Potato, granulated	1,025	"	"	"	"	4,200	"	"	"
Potato, sweet	640	"	"	"	"	2,950	"	"	"

Modifications in the process of manufacture are practicable by which many of the vegetables may be prepared in compressed form and in this condition have approximately the same specific gravity as water or slightly higher. The advantage of this procedure is evident from the shipping standpoint as it not only reduces the bulk very greatly, bringing the material to a very satisfactory density for shipment, but it brings about a still further saving in containers, packing, etc.

NUTRITIVE VALUE OF DEHYDRATED FOODS

Since nothing but replaceable water has been removed from the foods, they contain all the food combinations and food values of the original materials. It is not, however, suggested that those dehydrated products should take the place of fresh vegetables when the latter can be secured in plentiful amounts and prime condition at reasonable prices. On the other hand, they are entirely superior to old, heated or wilted vegetables or those which have undergone deterioration by freezing or action of fungi or bacteria, and their advantages from this standpoint need no further argument.

A few analyses of dehydrated vegetables are appended in order to show that the foods are still normal in character and food value and to demonstrate the great saving in weight and bulk due to loss of water.

These analyses agree fairly closely with the theoretical figures calculated from the average analyses given by Atwater and Bryant. Some variation in analyses is expected owing to actual differences in composition with different varieties of vegetable and types of soil.

Some calculated analyses based on a 10 per cent water content are here given for comparison. Especial attention is called to the actual fuel value per pound and the rate of fuel value in the fresh and the dehydrated product. While these are calculated rather than actually obtained by analysis, they nevertheless

ANALYTICAL DATA ON DRIED VEGETABLES

	Lab. number	% Moisture	% Ash	% Protein	% Crude fiber	% Ether extract	% Carbohydrate (by diff.)	Cal. 100 gms.	Cal. 1 lb.
Onions	1	5.61	4.10	12.25	5.06	1.76	68.22		
	8	6.97	3.42	13.12	4.96	.72	70.81		
	3038	5.36	3.25	11.37	3.81	1.23	74.98		
Average		5.98	3.59	13.25	4.58	1.24	71.34	358	1625
Av. Mois. Free			3.82	14.10	4.87	1.32	75.89	381	1729
Turnips	9	3.96	9.43	12.93	9.55	.78	63.35		
	3052	5.79	7.23	16.58	8.04	.25	62.11		
	3040	9.73	5.94	9.00	8.41	.47	66.45		
Average		6.49	7.53	12.84	8.67	.50	63.97	320	1449
Av. Mois. Free			8.05	13.73	9.27	.53	68.42	342	1550
Carrots	3	1.71	4.53	5.26	8.72	2.17	77.61		
	6	5.44	6.07	5.87	8.25	1.24	73.13		
	3037	6.93	5.87	5.17	7.31	1.03	73.69		
Average		4.69	5.49	5.43	8.10	1.48	74.81	343	1554
Av. Mois. Free			5.76	5.70	8.51	1.55	78.48	360	1631
Potatoes	2	7.90	3.89	9.72	1.83	.21	76.45		
	7	5.84	3.88	9.18	1.77	..	79.33		
	3061	4.01	3.52	10.00	1.78	.14	80.55		
Average		5.92	3.76	9.63	1.79	.12	78.78	364	1640
Av. Mois. Free			4.00	10.24	1.90	.13	83.73	386	1753
Cabbage	10	4.44	6.98	19.18	8.27	.97	60.16		
	3045B	4.26	5.62	12.44	7.83	1.03	68.82		
	3046	5.20	5.61	13.56	8.11	1.28	66.24		
Average		4.63	6.07	15.06	8.07	1.09	65.08	339	1536
Av. Mois. Free			6.37	15.79	8.47	1.14	68.23	355	1610
Tomatoes	4	5.17	5.57	17.25	7.28	3.35	61.38		
	11	4.02	8.66	14.18	8.51	1.71	62.92		
Average		4.59	7.12	15.71	7.90	2.53	62.15	343	1555
Av. Mois. Free			7.46	16.47	8.28	2.65	65.14	359	1629
Parsnips	5	2.81	6.40	10.00	6.73	1.77	72.29	354	1605
Mois. Free			6.59	10.29	6.92	1.82	74.38	364	1651

show the general values for dehydrated foods which are entirely practicable from the manufacturing point of view:

Vegetable	% Water	% Protein	% Fat	% Total carboh.	% Fibre	% Ash	Fuel value per lb.	Ratio of fuel value
Beets, fresh, edible portion	87.5	1.6	0.1	9.7	0.9	1.1	215	1: 7.2
Beets, dried	10.0	11.5	0.7	69.8	6.5	7.9	1547	
Cabbage, fresh, edible portion	91.5	1.6	0.3	5.6	1.1	1.0	145	1: 10.6
Cabbage, dried	10.0	16.9	3.2	59.3	11.6	10.6	1536	
Carrots, fresh, edible portion	88.2	1.1	0.4	9.3	1.1	1.0	210	1: 7.6
Carrots, dried	10.0	6.4	3.1	71.0	8.4	7.6	1602	
Celery, fresh, edible portion	94.5	1.1	0.1	3.3	..	1.0	885	1: 15.2
Celery, dried	10.0	18.0	1.6	54.0	..	16.4	1391	
Corn, green, edible portion	75.4	3.1	1.1	19.7	0.5	0.7	470	1: 3.7
Corn, dried	10.0	11.3	4.0	72.1	1.8	2.6	1720	
Cucumbers, edible portion	95.4	0.8	0.2	3.1	0.7	0.5	60	1: 19.5
Cucumbers, dried	10.0	15.6	3.9	60.6	13.6	9.8	1563	
Eggplant, fresh, edible portion	92.9	1.2	0.3	5.1	0.8	0.5	130	1: 12.7
Eggplant, dried	10.0	15.2	3.8	64.6	10.1	6.3	1647	
Lettuce, fresh, edible portion	94.7	1.2	0.3	2.9	0.7	0.9	90	1: 17.0
Lettuce, dried	10.0	20.4	5.1	49.2	11.9	15.3	1528	
Okra, fresh, edible portion	90.2	1.6	0.2	7.4	3.4	0.6	175	1: 9.2
Okra, dried	10.0	14.7	1.6	67.9	31.2	5.5	1607	
Onions, fresh, edible portion	87.6	1.6	0.3	9.9	0.8	0.6	225	1: 7.3
Onions, dried	10.0	11.6	2.2	71.9	5.8	4.4	1634	
Parsnips, fresh, edible portion	83.0	1.6	0.5	13.5	2.5	1.4	300	1: 5.3
Parsnips, dried	10.0	8.5	2.6	71.4	13.2	7.4	1587	
Peas, green, edible portion	74.6	7.0	0.5	16.9	1.7	1.0	465	1: 3.5
Peas, dried	10.0	24.8	1.8	59.8	6.0	3.5	1646	
Potatoes, fresh, edible portion	78.3	2.2	0.1	18.4	0.4	1.0	385	1: 4.1
Potatoes, dried	10.0	9.1	0.4	76.4	1.7	4.2	1598	
Potatoes, evaporated, as purchased	7.1	8.5	0.4	80.9	..	3.1	1680	
Pumpkins, fresh, edible portion	93.1	1.0	0.1	5.2	1.2	0.6	120	1: 13.0
Pumpkins, dried	10.0	13.0	1.3	67.8	15.6	7.8	1565	
Spinach, fresh, as purchased	92.3	2.1	0.3	3.2	0.9	2.1	110	1: 11.7
Spinach, dried	10.0	24.5	3.5	37.4	10.5	24.5	1286	
Squash, fresh, edible portion	88.3	1.4	0.5	9.0	0.8	0.8	215	1: 7.7
Squash, dried	10.0	10.8	3.8	69.2	6.2	6.2	1653	
Tomatoes, fresh, as purchased	94.3	0.9	0.4	3.9	0.6	0.5	105	1: 15.8
Tomatoes, dried	10.0	14.2	6.3	61.6	9.5	7.9	1658	
Turnips, fresh, edible portion	89.6	1.3	0.2	8.1	1.3	0.8	185	1: 8.7
Turnips, dried	10.0	11.2	1.7	70.1	11.2	6.9	1600	
OTHER PRODUCTS FOR COMPARISON—O. E. S. Bul. 28, Revised								
Potatoes, sweet, fresh, edible portion	69.0	1.8	0.7	27.4	1.3	1.1	570	
Potatoes, sweet, dried	10.0	5.22	2.03	79.5	3.8	3.2	1653	

The keeping qualities of these materials is limited only by the lack of observance of care in preparation and storage. Moisture is necessary for the development of molds and bacteria, the great agencies of food deterioration, and so long as the foods are well dehydrated and have been kept so that no moisture is absorbed, they seem to keep in good condition. The most striking illustration of the keeping quality of dried vegetables is the reported saving of some 30,000 pounds of material dried for the British Forces during the Boer War until the outbreak of the present war in 1914, when the vegetables were used with satisfaction in the English army.

The food preparations made by the various methods have shown considerable variation in character and appearance. Differences in the rate of water absorption and the appearance of the pieces after swelling are noted. Aside from these physical differences, it is worth while to consider the sanitary aspect. In most cases there is a partial but probably not complete sterilization. In the mechanical processes much handling is eliminated, so that objections arising from that source are circumvented.

An extensive investigation of the keeping quality under different conditions of storage and different types of containers has been made under the writer's direction. This has shown that with good products in suitable containers there is no deterioration even when the foods are stored for months under the most adverse conditions of temperature and moisture. Without doubt this phase of the problem will be adequately met as the industry develops.

COMPARISON WITH CANNED VEGETABLES

A practical question at once arises as to the comparative utility of dehydrated and canned vegetables. The answer to this question requires consideration not merely of food values and availability, but also of relative cost of manufacture, relative cost of tin cans and packing cases, and relative cost of transportation. The cost of raw material alone would be essentially the same.

Vegetables may be conveniently grouped into two classes: (1) Those ordinarily canned, but also dried successfully, including peas, string beans, lima beans, tomatoes, beets, corn, pumpkin, spinach, cabbage, and sweet potato. (2) Those rarely or never

canned, but well adapted to drying, as potatoes, turnips, carrots, parsnips, celery, onions, and sprouts.

Comparisons should be made, therefore, only with the vegetables of class 1. These products are now canned in enormous quantities annually as shown by the following figures for 1917, which have been supplied to me as advance information from official sources:

	Cases		Cans
Tomatoes	15,076,074	=	361,825,776
Corn	10,802,952	=	259,270,848
Beans (all kinds)	4,486,070	=	107,665,080
Beets	739,565	=	17,749,560
Spinach	332,305	=	7,975,320
Squash and pumpkin	1,065,483	=	25,571,592
Sweet potato	238,250	=	5,718,000
Cabbage and kraut	1,493,122	=	35,834,928
Peas	9,829,153	=	236,899,672
Apples, apricots, peaches, pears	6,725,568	=	161,413,632

Since each individual can requires the use of from five to seven ounces of tin plate for the container, the saving in expense from this source alone is enormous. A less, but still noteworthy saving, would also be effected in packing cases. The third great advantage is in the transportation charges. Since the canned foods never contain less water than the fresh food and frequently contain an even higher percentage, it is seen that an undue proportion of the expense of canned goods lies in the handling, canning, and transportation of water.

The following table shows the weight of food as prepared for the can, the number of cans, size of can, number of cases, and weight and volume when prepared for shipment of some of the leading lines of canned goods:

WEIGHT AND BULK OF ONE TON OF VARIOUS VEGETABLES WHEN CANNED

Vegetable	Weight prepared	No. cans	Size	No. cases	Cu. ft. ready to ship	Total weight ready to ship
Corn	750 lbs.	740	2	31	31.77	1426 lbs.
Peas	1960 "	2240	2	93.3	95.63	4291 "
String beans	1500 "	2000	2	83.3	85.38	3832 "
Lima beans	800 "	1200	2	50	51.25	2300 "
Tomatoes	1100 "	535	3	22½	38.41	1763 "
Pumpkin	1400 "	700	3	29	49.88	2146 "
Sweet potatoes	1450 "	720	3	30	51.60	2250 "
Cabbage	1450 "	800	3	33	56.76	2400 "
Sliced vegetables	1600 "	267	10	45	55.80	2700 "

Reference to the table on page 60 of this report shows the weights of dried products of these same vegetables to be per ton:

Corn	465 lbs.	
Peas	350 "	
String beans	200 "	about
Green beans	250 "	
Tomatoes	125 "	
Pumpkin	200 "	
Sweet potato	513 "	
Cabbage	215 "	

A recent report on an analysis of dried tomatoes for moisture and solids, brought out the statement that one pound of the product with a water content of 7.4 per cent was equivalent to 10½ two-pound cans of solid pack Del Monte Brand tomatoes containing 5.02 per cent solids.

The saving to be effected by use of dried products is indicated by the estimated cost of canned and dried tomatoes shipped from California to France. It is stated that a case of canned tomatoes, costing $2.60 in California, costs $7 laid down in Havre. The equivalent amount of dried tomatoes selling 26 cents per pound in California, costs 40.5 cents in France, a saving of $6.595 or 94 per cent. While this is probably the most favorable case that could be cited it is certain that very large savings could be made in every line where dried products can replace canned ones. At the present day the value of the food substance in the can is but a fraction of the cost of labor, containers, packing cases and transportation charges.

COMPARISON OF DRIED AND CANNED FRUITS

What has been said of canned and dried vegetables applies also to fruits. Without discussing the whole problem it may be of interest and value to show the comparison between the dried fruits of the types at present on the markets and the same foods when canned.

YIELD PER TON OF FRUIT

Fruit	Weight prepared for canning	No. cans	Size	Cases	Cu. ft. boxed	Total weight boxed
Apples	1400 lbs.	1066	2½	44	66	2640
Peaches	1500 "	1143	2½	47⅝	71.25	2850
Apricots	1500 "	1143	2½	47⅝	71.25	2850
Pears	1500 "	1143	2½	47⅝	71.25	2850

Each can of these products contains 21 ounces of fruit and 8 ounces of syrup. The fruit contains on an average more than 85 per cent water. The actual weight of solids in each can is, therefore, small. The dried products are, on the other hand, about 80 per cent solids and 20 per cent water.

On a basis of actual food units (calories) we find, therefore, that the dried fruits have about the following comparative values per ton of fresh material:

	Canned			Dried		
	Weight water	Weight solids	Calories per lb.	Weight water	Weight solids	Calories per lb.
Apples	1184.4	215.6	290	308	1092	1380
Peaches	1321	179	220	285	1215	962
Apricots	1221	279	340	300	1200	1344
Pears	1216	284	355	323.5	1176.5	1180
Prunes	....	...	...	...	....	1430
Raisins	....	...	...	...	....	1534

Comparing weight and bulk when packed for shipment, we have the following figures:

Fruit	Canned		Dried	
	Weight boxed	Volume boxed	Weight boxed	Volume boxed
Apricots	....	71.25	....	37.35
Peaches	....	71.25	....	37.35
Pears	....	71.25	....	37.35

The work in commercial dehydration is still in its early stages in this country. There are many problems yet to be determined. We are now attempting to find out which processes are best adapted for general use, whether dehydrated products are deficient in any of the nutritive principles which they should possess and which the fresh vegetables themselves possess, to work out satisfactory methods of storage and transportation by selecting the best types of containers, and to acquaint the consumer, especially in the cities, with the great advantages which are likely to be gained by the use of dehydrated products.

Obviously, dehydration will succeed commercially only in those regions with abundant crops which can be contracted for at planting for a guaranteed price, or in centers having a short haul from the point of production and suitable shipping facilities. If, however, the problem is met scientifically there appears no reason to doubt that a demand will be created and that dehydration will become, as canning has, a great industry of immense importance to agriculture, with the further advantage that no tin plate will be required and that the consumer will purchase practically nothing but food material, whereas in the purchase of canned goods he is buying and the railroads are shipping enormous quantities of water.

In order to insure a successful industry, dehydrated products must have the quality which will make them the practical equivalent of the fresh materials. They must be handled in a sanitary manner, be put up in suitable packages, and sold at a price which will make them throughout the year comparable with fresh vegetables. We believe this can be done, and that dehydration will become the servant of agriculture as well as of the dwellers in the great cities.

Economic Aspects of the World Mineral Situation

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THE results of the Peace Conference will largely determine the future of nations. Each nation, whatever its present state of development, ultimately hopes to rise in the industrial scale from a producer and exporter of crude raw materials to the position of greater wealth and higher organization attained by a manufacturing nation. The control of natural resources is one of the important factors under consideration. Resources are very unevenly distributed and the control of one important world product is a diplomatic asset to the nation possessing it. Danger of too great dependence upon other countries has been emphasized by the war. Such dependence has involved the diversion from military service of the ship tonnage required for the actual import of the materials, for the return movement of fuel, equipment and supplies required in their production, and for the transportation of other less essential products insisted upon by the nations possessing them. In addition to the sacrifice of shipping and to the uncertainty of supply, the importation of bulky raw materials has overtaxed port facilities and has required increased financial credits in purchasing materials abroad. During the war, essential supplies of raw materials were cut off and many nations were forced to attempt to develop their home resources, even under unfavorable conditions. The continuation of this attempt may no longer be necessary if world security and peace can be permanently established and an equitable distribution of raw materials assured.

The Importance of Minerals

The war has greatly emphasized the importance of minerals, which rank with foods and textiles among the great and essential groups of raw materials. The fuels, iron and steel, copper, lead,

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and zinc were fundamental materials. In addition there is a smaller group of "War Minerals" whose importance is far greater than either their tonnage or value would indicate. The two fundamental materials for the production of all modern high-power explosives are nitrate used chiefly in the form of nitric acid, and concentrated sulphuric acid made from pyrite or sulphur. Manganese is the most essential alloy for high-grade steel for munitions and important industrial uses. Tungsten and molybdenum are essential alloys for tool steel. Flake graphite is used for crucibles required in the production of brass and crucible steel. Tin is required for tin-plate for utensils and cans for preserving food and for bearing metal. Quicksilver is used as fulminate to explode cartridges and shells, and is essential for the safe and effective use of high-explosives. Potash is used chiefly for fertilizer. Antimony is required for hardening lead for bullets. Chromite is used to make an alloy for tool steel, for tanning leather, and as a refractory lining in basic open hearth steel furnaces. Magnesite is used as a refractory in metallurgical furnaces. Mica is indispensable as an insulating material in the manufacture of electrical apparatus. Platinum is important as a "contact" material in the manufacture of sulphuric acid for explosives.

The annual production of the more important minerals approximated about 1,800,000,000 short tons prior to the outbreak of the European war. This does not include a number of minerals of more or less local significance, such as stone, cement, sand, and gravel. The relative weight of the various minerals produced in 1913, reduced to short tons, is as follows:

Coal	1,480,000,000
Iron Ore	195,000,000
Oil	55,000,000
Salt	24,000,000
Potash Salts	13,000,000
Phosphate Rock	7,000,000
Pyrite	6,600,000
Oil Shale	4,000,000
Nitrate	3,100,000
Manganese Ore	2,600,000
Lead	1,300,000
Copper	1,100,000

Zinc	1,100,000
Sulphur	800,000
Bauxite	600,000
Crude Magnesite	600,000
Chromite	200,000
Asbestos	180,000
Tin	140,000
Graphite	140,000
Nickel	32,000
Antimony	27,000
Arsenic	16,000
Silver	9,320
Tungsten	9,000
Quicksilver	4,400
Sheet-Mica	4,000
Vanadium	1,240
Gold	912
Molybdenum	244
Platinum	11

These figures of relative bulk must be kept in mind as the further discussion will deal with percentages of output. While one per cent of the world's coal output represents approximately 15,000,000 tons, one per cent of the world's production of platinum is only a small fraction of a ton.

For purposes of general discussion minerals may be grouped under three heads: fuels, metals, and non-metallic minerals.

I. FUELS

The principal minerals in this group are coal, petroleum (including shale oil), and natural gas. Considerable amounts of peat are used as fuel, but under present conditions it is of local significance.

Coal represents by far the largest tonnage in the mineral group. It may be divided into three sub-groups, anthracite, bituminous, and lignite. The anthracite is of principal significance as a smokeless domestic fuel. Bituminous is further divided into two significant groups, coking and non-coking. Coking coal is required in the principal metallurgical operations and is important in the

development of smelting industries. Non-coking bituminous coal is used for power and industrial purposes, for railroad and bunker purposes, and in the absence of anthracite for domestic purposes. It represents the principal coal used for export purposes. Lignite coals are of lower grade and are generally restricted to local consumption.

Europe and North America are the principal coal producing continents. The 1913 production was as follows: United States, 39 per cent; Great Britain, 32 per cent; Germany, 21 per cent; Austria, 4 per cent; France, 3 per cent; Russia, 2 per cent; Belgium, 2 per cent; Japan, 2 per cent; India, 1 per cent; China, 1 per cent; Australia, 1 per cent; Canada, 1 per cent; and all others 1 per cent. Great Britain, Germany, and the United States were the principal exporting nations, with a smaller amount from Japan and Australia. Practically all the other important producers used their production for home consumption and required additional imports. Most of the principal producers are capable of continuing production for a considerable period of time. The great future reserves of the world are held by the United States with one-half of the total, Canada with one-sixth, and China with one-seventh. Great Britain's reserves are smaller, but of the highest average quality. A considerable part of the world's reserves consist of the lower grade lignite coals. The net effect of the war on the coal industry was to cut off the German export, to cause a decline of over 20 per cent in the British export, and to considerably increase the export from the United States to both Europe and South America.

Soon after the beginning of the war, Germany increased her control over coal resources by the capture of fields producing about one-half the French output, by the capture of all of the Belgian coal fields, and by the capture of the coal field in Poland producing about one-fifth the total Russian supply. This increased the German and Austrian control of this important fuel by about 4 per cent. On the whole the production of coal has been less than normal since the war began. In most countries production has declined from 10 to 20 per cent except in the United States where it has increased to meet the demands incident to the manufacture of munitions and to a greater export trade.

PETROLEUM AND PETROLEUM PRODUCTS

Petroleum may be used in its crude state as fuel oil for industrial, railroad, and steamship purposes, or it may be refined into a number of products of wide significance. The principal ones are gasoline for internal combustion engines, kerosene used largely for lighting purposes, lubricating oils, residuum used as fuel oil, and asphaltum for road making. Improvements in refining and cracking processes are resulting in the recovery of a larger percentage of the high-grade products and a corresponding decrease in the amount of oil used for heavy fuel purposes. A minor but significant source of supply for oil products is the distillation of shales which has been principally developed in Scotland, but large reserves are available in the United States.

The use of petroleum and petroleum products was greatly expanded during the war. Large amounts of fuel oil were required for allied naval operations, and the demand for gasoline and motor spirit was enormously increased by the use of motor trucks, aeroplanes, submarines, and tanks.

North America and Europe are the principal petroleum producing continents. The relative importance of 1913 world production was: the United States, 64 per cent; Russia, 17 per cent; Mexico, 7 per cent; Roumania, 4 per cent; Dutch East Indies, 2 per cent; Austria, 2 per cent; India, 2 per cent, and all others 2 per cent. As far as reserves are concerned, the United States will hold its leading position for many years to come. Russia may ultimately be expected to be the leading world producer. Mexico has very extensive reserves and its production is rapidly increasing. Very large undeveloped areas of great promise are known in Persia. During the war the Russian production was available for Russia's requirements and the principal oil territory was occupied by the British after the collapse of Russia. Germany was greatly handicapped because of the small amount of petroleum available for her use. The Austrian output from Galicia was available and the Roumanian fields were later captured, but these fields were partially destroyed and were only brought back to somewhere near normal production at the close of the war. Although Germany was able to use railroad facilities to a greater extent, relied less on motor trucks, and did not have the heavy

demands for naval operations, the shortage was very keenly felt. The Allies relied largely on production from the United States and Mexico, the principal limit of supply being the shortage of tank steamers which was intensified by losses from submarine attacks. Both the United States and the Mexican production was very greatly increased and Mexico probably took second rank among the producers in 1917.

Natural gas is a very important fuel which has been principally produced in the United States. Because of the fact that it must be piped to the point of consumption, it is generally used in relatively local areas and does not enter into export or long distance transportation.

While hydro-electric power has been largely developed in many districts and comes into competition with the natural mineral fuels, it is again a matter of relatively local use and does not offer any immediate prospect of replacing the other principal fuels although it will occupy an increasing field.

II. METALS

The metal group may be divided into several sub-divisions, the largest of which is iron and steel including the steel alloys.

Iron ore takes second place among the bulky mineral products. The iron and steel industries which make use of it, have generally been located with respect to the coking coal supply, so that a nation which possesses iron and does not possess coal has not become important in steel manufacturing.

Europe and North America are the principal iron ore producing continents. The relative importance of the 1913 world production by countries was: the United States, 36 per cent; Germany, including Luxemburg, 20 per cent; France, 12 per cent; the United Kingdom, 9 per cent; Russia, 5 per cent; Spain, 5 per cent; Sweden, 4 per cent; Austria, 3 per cent; Canada, 1 per cent; Cuba, 1 per cent and all others 4 per cent. The present principal producing districts contain large reserves and no immediate shifting of the industry is probable. Brazil and China have vast reserves which have so far been little developed. Newfoundland also has large reserves which so far have been developed only on a small scale. The principal effect of the war on the iron ore situation was the seizure of a large part of the French producing districts by

Germany early in the war. With the close of the war and the probable return of the Lorraine iron deposits to France, Germany will lose practically 70 per cent of her known iron deposits representing about 60 per cent of her pre-war production, thus increasing French control from 12 to 24 per cent and decreasing German control from 20 to 8 per cent of the normal world output.

The production of pig iron in the United States increased almost one-third while that of most countries declined. This indicates the extent to which the allied nations depended on this country for war materials.

Of the steel alloys, manganese and chrome represent the minerals involving the larger tonnages. Before the war Russia produced 56 per cent of the world's manganese, India 35 per cent, and Brazil 5 per cent. The export of Russian manganese was cut off by the closing of the water route via Constantinople. The shipments from India were largely curtailed by the shortage in ocean shipping. Under these circumstances Brazil was more favorably situated, and her output increased over four fold. Before the war Rhodesia furnished 35 per cent of the output of chromite, New Caledonia 35 per cent, Russia 13 per cent, and Asiatic Turkey 8 per cent. While the principal sources of New Caledonia and Rhodesia remained available, shipments were interrupted, because of the difficulties of ocean transportation, and the situation necessitated conservation in the use of this essential mineral. Production in the United States and Canada was greatly stimulated so that at the close of the war these countries were large producers. Because of the handicap of transportation and lower grade deposits, it is doubtful whether much of this output will be permanent. Tungsten, molybdenum, vanadium, and cobalt, while important as special alloys, are produced in very small tonnages. The pre-war production of tungsten came from Asia, 28 per cent; United States, 16 per cent; Australia and New Zealand, 15 per cent; Spain and Portugal, 14 per cent, and South America, 14 per cent. Practically all of these sources remained available as the total tonnage was relatively insignificant. Under the stimulus of high war prices the world production was doubled. The United States and Australia were the principal producers of molybdenum, with Norway as third in importance. Because of the small tonnage of this alloy and its restricted use, the situation

was not greatly disturbed. Peru and the United States were the principal sources of vanadium, the former having the largest and most important deposits in the world. The production of vanadium varies considerably from year to year and the situation was not greatly disturbed. The principal supply of cobalt comes from Canada. The steel alloy group as a whole is a most significant one because of the production of special steels which are absolutely essential for such purposes as tool steel, automobile and machine parts, and munition manufacture.

NON-FERROUS METALS

The second sub-division of metals includes the principal non-ferrous metals such as copper, lead, zinc, tin, aluminum, and nickel. The tonnage involved is relatively small compared to the great variety of manufactured products into which they enter.

North America produced two-thirds of the world's copper in 1913. The United States ranked first with 56 per cent, with Japan as second with only 7 per cent, and Mexico, Spain, and Australia each 5 per cent. The rest of the production is widely scattered. The Central Powers produced only about 3 per cent of the total, and were greatly handicapped by the lack of this essential metal. The United States will probably continue to be the principal producer for many years. Outside of the United States, Chile and the Kongo Independent State have the largest known reserves. The production of copper increased by 50 per cent during the war.

North America furnished 43 per cent of the world's output of lead, Europe 30 per cent, and Australia 20 per cent. The principal countries in their order of importance were: United States, 36 per cent; Australia, 20 per cent; Spain, 16 per cent; Germany and Austria, 8 per cent, and Mexico, 5 per cent. The United States production increased 40 per cent during the war while in other countries it declined. The leading zinc producing continents were Europe, 43 per cent; North America, 36 per cent, and Australia, 15 per cent. The principal countries were: the United States, 35 per cent; Germany, 25 per cent; Australia, 15 per cent; Italy, 5 per cent, and Algeria, 3 per cent. The rest of the production was widely scattered. The principal effect of the war was the disturbance of smelting facilities, a considerable part of which was

located in Belgium and Germany. Much of the Australian concentrates had to be shipped temporarily to the United States for smelting. With regard to tin, Southern Asia and the East Indies produced 65 per cent, and Bolivia 20 per cent, with smaller amounts in Australia, England and Africa. The Central Powers have no production of this important mineral. While world transportation conditions were difficult, the tonnage was relatively small and no serious war shortage resulted although curtailment in non-essential uses was necessary. Bauxite, the ore from which aluminum is made, was produced almost entirely by two countries: France, 57 per cent, and the United States, 40 per cent. The output greatly increased due to war demands as aluminum was largely used in the construction of aeroplane and automobile parts. Canada has almost a world monopoly of nickel, producing 84 per cent, while New Caledonia produced about 11 per cent. In summarizing this important group of minerals we may observe that the Central Powers had almost no production of copper, aluminum, nickel, and tin, and were thus severely handicapped.

THE PRECIOUS METALS

The third sub-division is the precious metal group, including gold, silver, and platinum. The tonnage of the finished products is insignificant compared with their financial and industrial importance. All three of these metals have been used largely for jewelry and other less essential purposes. Gold and silver are of essential importance principally from a financial standpoint, while platinum was of special war significance because of its use in the production of sulphuric acid by the contact process and for essential parts in electrical apparatus. In 1913 South Africa was the most important gold producing section with 44 per cent of the world output, the United States was second with 19 per cent, Australasia follows with 12 per cent, Russia with 6 per cent, Canada 4 per cent, Mexico 4 per cent. The rest of the production was widely scattered. In the production of silver, North America was the leading continent with 77 per cent distributed as follows: Mexico, 32 per cent; the United States, 30 per cent, and Canada, 14 per cent. Australia was next with 8 per cent, and then Peru with 4 per cent and Germany and Austria with 3 per cent. Russia produced 93 per cent of the world's platinum, and Colombia

furnished most of the remainder. The Russian production declined during the war and was cut off after the collapse of Russia. The output of Colombia very largely increased, but the increased war demand for platinum resulted in a campaign to restrict its use for jewelry and less essential purposes. The production of both gold and silver declined to an alarming extent during the war. This was due to the increasing cost of labor and supplies for mining while the purchasing value of the product—the dollar—declined in proportion.

The fourth sub-division includes metals such as quicksilver, antimony, magnesium, radium, and a number of others of less importance. Quicksilver was of particular war importance because of its use as fulminate in connection with the detonation of high explosives. Four countries produced the larger part of the world supply before the war as follows: Spain, 31 per cent; Italy, 25 per cent; Austria, 22 per cent, and the United States, 14 per cent. The United States output largely increased during the war. China has been the principal source of antimony with a production of 53 per cent in 1913, with France second with 24 per cent, and the United States third with 8 per cent. The Chinese deposits are extensive and cheaply mined and production rapidly increased during the war. A considerable amount of the metal magnesium was produced as a light alloy for aeroplane construction. Radium has been of prime importance because of its use in the treatment of cancer. Certain compounds of radium have been largely used in luminous parts for watches and various military equipment.

III. NON-METALLIC MINERALS

The non-metallic minerals may also be sub-divided into several groups. The largest, from a standpoint of tonnage, is the building and structural group.

The minerals include stone, clay, sand, gravel, and asphalt. Secondary manufactured products are cement, brick, and pottery. These minerals are bulky and of wide distribution, therefore they are generally restricted to local markets, where they are used for building purposes, for road materials, and other structural work. Some of the higher grades of clay and stone serve special manufacturing or ornamental purposes and may be transported long distances, but these are exceptions to the general rule.

A second sub-division is the fertilizer group. The three most important minerals are nitrate, potash, and phosphate. The principal deposits of these minerals are concentrated in a few places and they largely enter into world commerce. Chile produces practically all of the output of natural nitrate. The production of artificial nitrates by various electrical and chemical processes has been expanded and probably furnished a considerable part of the German supply which was supplemented by large stocks accumulated before the war. Chile furnished the larger part of the supply required by the Allies for the manufacture of explosives. The transportation of several million tons of this material was a serious problem and resulted in considerable curtailment of its use for fertilizer. Germany had a similar monopoly control with regard to potash, producing practically all of that essential fertilizer. The world's supply was cut off with the outbreak of the European war.

A considerable development from natural deposits and from by-product sources took place in the United States so that at the end of the war a production capacity had been developed to meet one-third of the requirements. This development took place under the stimulus of very high prices and it remains to be seen how much of this industry can survive the handicap of high freight rates from the western deposits which have furnished a large part of the output.

The supply of phosphate rock comes principally from the United States, 45 per cent, and from Northern Africa, 35 per cent. France was third with only 5 per cent, with smaller amounts from Belgium, and several small islands of the Pacific. A shortage of labor and ocean shipping, together with the loss of the German market, largely decreased the total production of this material.

A third sub-division is the chemical and metallurgical group. Pyrite and sulphur are used in the manufacture of sulphuric acid, in the production of sulphite wood pulp, and for a great variety of other chemical purposes. The largest production of pyrite comes from a district in Spain, a small part of which extends into Portugal. This district furnished 61 per cent of the world's output before the war. Norway was second in importance with 8 per cent, and the rest of the production was widely scattered. A considerable increase in the United States and Canadian produc-

tion took place, but the principal war demands were met by an enormous expansion in the production of sulphur. Italy (47 per cent) and the United States (44 per cent) produced the great bulk of the world's sulphur output with the remainder of about 8 per cent coming from Japan. The production in the United States has been very rapidly increased and was almost on a par with that of Italy before the war. During the war the United States production expanded almost four fold, giving it preëminence as a world producer while the production of Italy suffered a serious decline.

Graphite and magnesite are largely used for refractory purposes in the metallurgical industry. The flake graphite is used for crucibles for melting brass and steel. Ceylon, Austria and Madagascar were the principal sources of supply before the war. The production of Madagascar was very largely increased. A large increase in the United States industry took place. Austria produced three quarters of the world output of magnesite, and when this supply was cut off at the beginning of the war, it created a problem in the steel industry where it was largely used as a refractory furnace lining. A great expansion took place in the United States industry in California and Washington, which met our requirements, while the Grecian output also was expanded so that no serious suffering resulted from the war situation. Salt is a mineral of large tonnage, very widely used for many purposes; fuller's earth, borax, barites, and arsenic are other numbers of this group.

Another sub-division includes miscellaneous minerals, such as asbestos, mica, abrasives, and others of less importance. Canada produced about 90 per cent of the world's supply of asbestos, with Russia as the country second in importance. The Canadian production has increased during the war while that of Russia has steadily declined. India produced about 60 per cent of the world's supply of sheet-mica, the larger part of the remainder coming from the United States and Canada.

WAR EFFECTS SUMMARIZED

In summarizing the effect of the war on the world mineral situation there are three subjects to be discussed: (1) the changes in the national control of minerals during the war, (2) the development

of new sources of supply of either a temporary or permanent character, and (3) the change in ownership of important resources which will probably result from the Peace Conference.

CONTROL OF MINERALS DURING THE WAR

The immediate effect of the war was a general disturbance and paralysis resulting from the closing of markets, the interruption of transportation routes for export, and a shortage of labor when the men were called to military service. A number of mineral districts of world importance were in the fighting zone and were partially destroyed, or for the time being rendered useless. The German occupation of Belgium and of large areas in France cut off an important part of the world's zinc smelting facilities, deprived France of about one-half of her normal coal supply, and cut off a large part of her iron and steel output. The loss of a large part of the market for American copper and phosphate rock which had been shipped to Germany seriously affected those industries. The exports of German coal and potash and of Austrian magnesite were stopped. With the entrance of Turkey into the war, Russian manganese ore could no longer find an outlet via Constantinople. Outside of these materials the rest of the world's mineral resources were available for the use of the Allies, but as the destruction of shipping increased, it became more and more difficult to secure a supply of the more bulky materials which had to be shipped long distances, such as coal from Europe to South America, pyrite from Spain to the United States, nitrate from Chile, manganese from India, and chromite from New Caledonia and Rhodesia.

The supply of minerals available for use by the Central Powers came principally from Germany and to a lesser extent from Austria and Turkey. Very little material was secured from the nearby neutral countries of Norway, Sweden, The Netherlands, and Switzerland, as they have few important mineral resources, although some iron ore, pyrite and copper were imported from Norway and Sweden.

Germany and Austria produced 25 per cent of the world's pre-war coal output. This supply was largely increased by the occupation of the Belgian fields, the capture of fields producing about one-half of the French output, and by the capture of the Dombrowa Basin in Poland producing about one-fifth of the total

Russian supply. With the collapse of Russia the latter control was extended over one-half the Russian output. Production from these various captured fields declined very considerably, due to their partial destruction, but undoubtedly added from 40 to 50 million tons per year to the German control of coal supplies. Germany and Austria produced 23 per cent of the world's output of iron ore which was available for war purposes. In addition a considerable part of the French ore deposits, forming an extension of the German Lorraine field, was occupied early in the war. The available supply of the world output of other major metals was lead, 8 per cent; zinc, 26 per cent, and copper, 3 per cent. The lack of copper was very keenly felt. The Central Powers produced very little of the important steel alloy minerals; namely, 1 per cent of nickel, 2 per cent tungsten, 7 per cent molybdenum, and 8 per cent of chromite from Asiatic Turkey. When her accumulated supplies of these materials were exhausted, the quality of her steel products greatly deteriorated and was a very serious handicap in producing war equipment. The lack of any natural nitrate deposits was made up by the artificial production of nitrate which was greatly increased during the war.

The supply of petroleum was very inadequate, particularly in a war where motor vehicles played such an important part. Austria produced about 2 per cent of the world's oil output, and the occupation of Roumania added about 4 per cent additional to this supply, although a considerable part of this latter amount was not available due to the destruction of the oil fields before they were seized by the Germans.

Germany was poorly supplied with raw materials for sulphuric acid, controlling only about 5 per cent of the world's pyrite output and practically no sulphur. She had a practical monopoly on the entire world's supply of potash, but had inadequate supplies of phosphate rock and nitrate, and as a result the food supply was considerably affected.

Australia and Turkey were producing about 25 per cent of the quicksilver supply so that an adequate amount was available for war demands.

In summing up the mineral situation of the enemy countries we may conclude that they had fairly adequate supplies of coal and iron, zinc, lead, potash, magnesite, and quicksilver, but were

seriously handicapped by a shortage in petroleum, copper, tin, aluminum, manganese, nickel, pyrite, sulphur, and nitrate. The shortage of these minerals and their resulting effect in the production of war munitions and food, was an important factor in the economic collapse of Germany.

NEW SOURCES OF MINERAL SUPPLY

It is difficult to forecast how permanent may be the new sources of mineral supply. The increased production of artificial nitrates will undoubtedly compete with the monopoly of the natural supply of this mineral which Chile has long enjoyed. The discovery of natural deposits of potash in Spain and the United States and the development of many by-product sources may establish new permanent competing sources. The production of platinum from Colombia has been greatly increased. The further development of the tin deposits in Bolivia and the establishment of tin smelters in the United States to handle this ore is another development of importance. The tremendous increase in the output of manganese from Brazil will undoubtedly give that country a more important position in the trade than it has held in the past. The increased production of flake graphite from Madagascar has brought that island into the foremost rank of producers of this material. The tremendous increase of the output of sulphur in the United States will strengthen the position which that material had already secured in the world's market. With the development of new smelting facilities in other countries, it is probable that Germany cannot regain her position in the zinc industry. The United States demonstrated her ability to produce many essential minerals to meet war demands, such as manganese, chromite, pyrite, magnesite, and graphite. To what extent these new industries can permanently survive is not yet apparent.

CHANGES EFFECTED BY THE PEACE CONFERENCE

Certain important facts about the ownership of mineral deposits seem fairly well determined, of which the most important is the transfer of Alsace-Lorraine to France. By this change Germany will lose three-fifths of her iron ore production, representing, in 1913, 12 per cent of the world's output. The transfer of the Alsace potash deposits will break the German monopoly of this essential

mineral. While in 1913 these deposits produced only 5 per cent of the output, and the Stassfurt deposits produced 95 per cent, the deposits are large and capable of extensive development under French control. In addition a small and important percentage of mica output from German East Africa, and of phosphate output from the Pacific Islands will probably be transferred to the control of other nations. The latest negotiations have dealt with the coal deposits of the Saar Valley, which is located in the part of Germany bordering Lorraine. If the coal output from this district is put under the control of France, it will be an important factor in supplying the fuel for the iron and steel industry which is based on the Lorraine iron ore deposits above mentioned.

The American Trade Balance and Probable Trade Tendencies

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PERHAPS the most conspicuous thing about the foreign trade of the United States during the war has been the development of an unprecedented trade balance which has changed the United States from a debtor to a creditor nation. The significance of this change is puzzling to many people. Its influence will continue for many years, and an understanding of it is important in the development of foreign trade policy for individuals as well as nations, for the greatest single reconstruction that America faces is the reconstruction of its foreign trade.

CHANGE OF THE UNITED STATES FROM DEBTOR TO CREDITOR

Before the war the United States was always a rich field for the investment of capital because of the numerous opportunities to start enterprises offered by our undeveloped resources. This situation naturally attracted the savings of European countries, particularly Great Britain, because of the comparative lack of attractive investment opportunities in the Old World. The result was a large accumulation of American securities and other property rights in European hands. This financing of American enterprise by foreign lenders meant, in foreign trade, the export of American commodities to cover the interest payments arising from our use of outside capital. In addition the United States has been a large importer of various kinds of services. Foreign ships have carried most of our foreign trade, and most of their cargoes have been insured by foreign companies. Foreign laborers sojourning here made in the aggregate large remittances of earnings to their home countries. This wage remittance virtually constituted the import of labor services. Again, American tourists spent large sums in Europe for supplies and services. All of these items were paid for by the export of commodities from the United States.

This situation is summarized in an article in the *Commercial and Financial Chronicle* of September 21, 1918. According to this article the United States entered the war owing the world about $5,000,000,000 in the form of securities of all descriptions and of property owned outright in the United States by non-resident foreigners. On the other side of the account were the foreign securities and other property owned by American citizens, which amounted to about one and one-half billions. This left the United States a net debtor to the extent of three and a half billion dollars. The net annual outgo to foreign countries (largely in goods, of course), after deducting reciprocal trade in commodities, was, according to the *Chronicle*, about 500 million dollars itemized as follows:

Interest on securities and other property incomes	$175,000,000
Freight charges	25,000,000
Remittances by foreign laborers	125,000,000
Expenditures of American tourists abroad	150,000,000
Insurance premiums and sundries	25,000,000
Total	$500,000,000

The changes in the foreign financial relations of the United States as produced by the urgency of war conditions are shown in this same article somewhat as follows:

Foreign securities and other property owned by Americans at beginning of war	$1,500,000,000	
Net merchandise exportation (including gold and silver), July 1, 1914–July 1, 1918	9,265,000,000	
		$10,765,000,000
American securities held abroad at beginning of war	4,000,000,000	
Other American property owned by non-resident foreigners	1,000,000,000	
		5,000,000,000
Present net balance in favor of the United States		$5,765,000,000

Two factors not mentioned in the foregoing discussion are the expenditures of our soldiers and army abroad and the military supplies that the United States government will sell in Europe as it closes up its affairs there. These factors are mutually offsetting, but not measured. Another heavy American expense lies in payment for the use of European shipping.

Assuming that our foreign credit will amount to $9,000,000,000 by the autumn of 1919, which appears possible, the *Chronicle* article analyzes the interest balance as follows:

". . . . Formerly our annual payments of interest, less income from similar sources, amounted to about 175 million dollars. Now we shall have a net income from that source of about 450 million dollars. Formerly we paid freight abroad annually to the extent of about 25 million dollars. Now it is quite likely we shall have a substantial income from this source.

NET INCOME REPLACES NET OUTGO

"Let us assume that the other items on our annual income and outgo sheet will remain stationary, although it is quite likely that in most cases our income will be increased and our outgo decreased. However, changes in these items are not of sufficient importance to materially affect final results. The net result will be that, while formerly we had a net annual outgo of about 500 million

dollars, we shall in the future have a net annual income of about 175 million dollars." . . . .

With this amount due the United States each year what will be the course of our trade balance in the period beginning with 1920? In order to anticipate this future situation we should see recent happenings in their true light.

THE WAR A TEMPORARY TRADE EPISODE

One aspect of the situation that must affect the foreign trade balance has been too much neglected. Many persons seem to think that this world is made over commercially. It is much more nearly in the position of a ship that upsets in the storm and is then righted. The process is profoundly disturbing, but after the water is pumped out the ship goes on pretty much as before. The astonishing trade balance of the United States was produced by a temporary cause—one that in the trade sense may be called an artificial cause. The sudden transfer of the United States to the creditor column was due to an explosion in Europe—a temporary condition produced by sudden military conditions and not by the gradual working of economic forces. It did not result from any full development of resources such as has long existed between England and Canada or England and Argentina. The United States has not reached the industrial maturity that makes us a normal leader to Britain. Instead of this we had an almost universal stoppage of new industrial construction save for things contributing to the war, and the focusing of human energy on war for a period. This is a most unnatural process in trade and finance. It is equally unnatural in method of purchase. For a time European governments bought supplies here until they had plainly approached the limit of credit with private American lenders. Then the United States entered the war and threw the full force of the government and a wonderful public opinion into the raising of liberty loans. This money was loaned to European governments by the billion and spent in this country by government agencies for goods that we exported to produce the huge trade balance. We, the people of the United States, paid the producer for those goods, Europe promising to pay through our government at some date in the rather distant future. After a comparatively short period of reconstruction we will probably

stop the financing of American exports through loans from the American people to our government to be in turn loaned by it to European governments.

Trade will then come back from the political to the economic basis. What will be this basis?

THE POLICY OF INVESTING ABROAD ALL SURPLUS AND ALL INTEREST DUE

The rehabilitation of Europe, for a time at least, probably will call for continued large imports of American raw materials, and so continue our favorable trade balance and increase our foreign investments. Some financiers have gone so far as to predict that we would continue to maintain a heavy commodity export surplus and annually invest this surplus abroad, together with the interest thereon and the above-mentioned 175 million a year already due us and its annually accruing interest. One sees the fanciful nature of this prediction by noting that it is a problem in compound interest. Here is the way it would work out. Private investors in New York, London or Paris would buy the credits due the United States government and invest in South American or African mines, ranches, railways, etc. These must yield better rates than American investments, say 8 per cent, otherwise they would not be made.

AMOUNTS DUE AT END OF GIVEN PERIOD WITH GIVEN SUM INVESTED ABROAD ANNUALLY AT 8 PER CENT AND ALL INTEREST REINVESTED IN MILLIONS OF DOLLARS

At present	175	500	1,000
End of 1st year	189	540	1,080
End of 5th year	257	734	1,469
5-year total	1,108	3,167	6,335
End of 10th year	337	1,079	2,158
10-year total	2,737	7,822	15,645

As the prophets of indefinite investment expect the United States to invest both its war interest and the big trade surplus we must combine these factors. The 175 million and the 500 million

totals together make 4,275 million in five years, 10,559 million in ten years. The 175 million plus the billion would in five years pile up 7,443 million and in ten years 18,382 million. This is plainly fanciful.

THE POLICY OF INVESTING EXPORT SURPLUS ABROAD WITH RETURN OF INTEREST DUE

The producing capacity of the United States is doubtless such that Americans can make large investments somewhere in the next decade, but it is quite impossible that such an exclusive and constant piling up of both principal and interest abroad as above described should take place. If America continues to invest abroad after war emergencies are over we may expect the process to be gradual and the work to be done by private enterprise rather than by one government loaning to another government. Some persons will make fresh investments and even reinvest their interest. Others will take their interest and at times withdraw their capital. Suppose on the average the interest on foreign investments is regularly returned (chiefly in goods of course) but that the annual surplus of exports *over imports paid for by exports* is invested each year with returns at 8 per cent. This would give the following situation of net trade balance:—

	With Commodity Export surplus of 500 million offset by the annual 175 million of old interest and the annually accruing interest on 500 million dollars invested each year at 8 per cent	With Commodity Export surplus of 1,000 million offset by the annual 175 million of old interest and the annually accruing interest on 1,000 million dollars invested each year at 8 per cent
	Million dollars	Million dollars
1st year	325+	825+
2nd year	285+	745+
5th year	165+	505+
10th year	35−	105+
15th year	235−	295−

If Russia and the other European countries should have a long period of anarchy and the industrial chaos that would accompany it, we would thereby miss a great opportunity for foreign investment, especially in Russia, and, therefore, one of the greatest opportunities to maintain exports. Chaos in Europe means a quick end of big exports and a quick beginning of an import surplus—provided that our foreign investments stay good and pay their interest.

THE BASIS OF TRADE AS CHANGED BY THE WAR

When the earlier phases of reconstruction are over and the United States government ceases loaning to the European governments, American trade will come back from the political basis to the economic basis. What will this basis be? It will be the prewar basis modified by the war changes. The war changes will be small factors in trade in comparison to the fundamental economic forces. Trade arises from differences in industry which in turn are due to differences in education of people, in the skill of workers and in their willingness to work, differences in the efficiency of industrial organization and equipment, in character of resources, in the relative abundance of those resources and in its great result, viz., differences in wages and in standard of living. These great bases of trade have not been changed by war as much as some persons at first supposed, and it is even possible that the United States is not to be the net gainer in ability to produce for the foreign market. The United States and Europe will bear much the same general industrial relation to each other that they did before the war, and each will have about the same ratio of labor to resources that it had before the war. The one great difference between the two regions will be that Europe will owe the United States some billions of dollars whereas we owed her billions when the war started.

On December 9, 1918, Secretary McAdoo in a letter to Congress said that of $10,000 million authorized by Congress, as a war measure, for allied loans, $7,608 million had been made available in cash and $611 million represented credits established but not yet available in cash. Further advances for war purposes would run it up to a total of $8,500 million and the secretary asked Congress to permit the extension of time for those previously authorized

loans for one year after the war to cover the remaining $1,500 of the $10,000 million.

Explaining the desirability of this action, Secretary McAdoo wrote to Chairman Kitchin of the Ways and Means Committee, as follows:

"The gross needs of the governments of the Allies from the United States for after-the-war purposes they have estimated at a much greater total than 1,500 million dollars, but I believe investigation will show a considerable reduction in such estimates. A part of their requirements may be provided by the treaty of peace through awards in their favor for reparation either in money or material; a part will be provided out of dollars equivalent of our military expenditures abroad and a part should prove possible for these countries to finance through sales of private credit. A balance, however, is likely to remain which it may be impossible to provide other than by the use of loans from the government of the United States and the above amounts of about $1,500 million should be sufficient for this purpose. . . . .

"From the standpoint of enlightened policy the United States should put itself in position to provide the credits necessary to sell its surplus products until the establishment of normal peace conditions."

This last sentence from the secretary's statement helps to show how unnatural, how forced and, therefore, how temporary are our present unprecedented exports.

Another factor in this trade balance situation with Europe that should be carefully noted is the reduction of our imports from Europe almost to the vanishing point. Owing to the strain of war, they have, for a time, paid us in promises, promises of government to government, rather than in goods as is the common necessity of trade. In fact they have used promises almost to their limit.

In considering the post-war trade conditions that will prevail after a brief period of reconstruction, we should carefully appraise the changes that have occurred in the producing capacity of the various countries as affected by the war. Upon the whole the effort to produce food and war supplies probably has resulted in an increase of total per capita producing capacity for 1910 over that of 1914 in the United States, the United Kingdom, Italy, and all

of the West European neutrals. Belgium and Northern France have been in part devastated but the development of war industries in the uninvaded parts of France plus the reconstruction of 1919 will probably leave her also capable of as much or more per capita production in 1920 than in 1914.

In Germany and Austria there must be great need of repairs but there is also the important industrial fact that there has been great development of machine shops and chemical plants in making munitions. Poland, Russia, Serbia, Roumania and Slovania are regions largely agricultural and doubtless greatly reduced in farm equipment and work animals. Reconstruction there must apparently be slower than in West Europe.

In the war changes brought to West Europe three important things stand out:—

(a) *Europe Has Learned Mass Production of Machinery*

The European munitions industry has compelled the manufacturers of the leading countries of Europe to acquire an industrial method that had before been almost an American monopoly—namely, standardization, interchangeable parts and mass production in the manufacture of wood and metal-machinery, the very basis of a manufacturing industry. The American mower, reaper, automobile, watch, phonograph and other machines have invaded foreign markets because we exceeded Europe in the use of this wholesale method of manufacture. The pressure for munitions has compelled Europe to apply this revolution in her greatly expanded machine shops. Europe has in a measure caught up with America in manufacturing method. This means that the war has raised the ability of a peaceful Europe to compete with the United States, has put her in a better position than she was in comparison to the United States to equip the railroads, highways, mines, fields and factories of foreign lands. There has been no material change in the basis for the production of highly wrought products such as textiles, chemicals, and instruments of precision in which Europe has long led the United States because of the more abundant and more highly skilled labor supply resulting from greater density of population.

(b) *Europe Has Increased Her Use of Agricultural Machinery*

European agriculture has also been improved, especially British agriculture. The farm tractor and other farm machinery have worked a revolution here also, releasing man power for other things. One of the most spectacular changes of the war is the sudden spurt of Britain, that brought her from the position of the greatest food importer to the stage where she can largely supply her own breadstuffs. Many leaders of British opinion have announced the intention of maintaining this agriculture. The economics of agriculture, of trade and of sound national policy make this desirable for England, for she has a home market and excellent agricultural resources. In a statement to the British public on November 22, 1918, Messrs. Lloyd George and Bonar Law said, "The country will need all the food, all the raw materials, all the credit which it can obtain. Agriculture and key industries must be kept." This new British agriculture helps to offset the temporarily reduced agricultural capacity of Russia and East Central Europe, and for the next decade promises to reduce Europe's net demand for import grain.

(c) *Man Power Shortage in Europe and America Much Alike and Largely Replaced by Machinery and Improvements in Efficiency*

In man power, Europe has killed 10,000,000 men, but she kept home about 3,000,000 people who would normally have come to the United States. For thirteen years before the war we received on the average 784,000 immigrants net. During the war we received 102,000, a difference due to the war of 682,000 per year, or for the four years of the war over 2,750,000, or more than Germany or France or Britain lost in the war, although the war loss was of men, and our immigrants were partly women and children. The stopping of the European emigration during the war has been a substantial factor in mitigating her man-power loss. For the future the labor supply for America from immigration is uncertain. We have a more stringent immigration law than we have ever had before.

The conscript armies of the Central Empires, France, Italy and Russia with their millions at one, two and three years service, have kept constantly in military training a number of men nearly or quite equal to the total soldier death losses of the war. The

abolition of the conscript army would at once nearly or quite replace Europe's man power. The support of these millions of non-producers in the barracks has been another burden that may be lifted from European industry.

In one sense there has been no loss of man power, for the improvements in machinery, the improvements in industrial organization and manufacturing method, the greater work by women —all those have much more than replaced the men who have disappeared in both Europe and America, and Europe has probably surpassed the United States in all four of these respects—improvements in machinery, in manufacturing method, in industrial organization and in the training of women workers. Upon the whole Europe's net labor shortage due to the war may be surprisingly little more than that of the United States.

It therefore appears clear that, except for anarchy, Europe is upon the whole about as able as ever to compete with the United States after a brief period of reconstruction, for which the United States will supply important raw materials or credit.

After this reconstruction period we may expect the pre-war economic relationship between Europe and the United States to resume, save for the facts of debt to the United States and the increased European ability to compete in the manufacture of machinery. That pre-war economic relationship was one in which Europe loaned to the United States; now she owes us money, a strong reason for exporting to us. She loaned to us in the pre-war period because the United States was such a good field for investment. The United States is still a good field for investment.

AMERICA AS A FIELD FOR INVESTMENT AND ITS INFLUENCE ON THE TRADE BALANCE

In the post-war as in the pre-war period the United States with its great unused resources of land, mine and forest will continue to be an excellent place for the starting of enterprises and, therefore, for the investment of capital, so that the prediction of a great exportation of productive material for foreign investment may not come true and we may instead have a surplus of imports, due in part to the industrial development of our own resources rather than of foreign resources.

In this matter of capital and surplus we should constantly keep

in mind the distinction between *governments* and *peoples*. The British government and the British nation are a case in point. The government is heavily in debt, chiefly to its own people. Payment on this debt will transfer money from one British pocket to another. They have borrowed a few billion dollars from the United States but they have loaned to France and Italy and they have settlements coming from Germany. Meanwhile it is generally agreed that Britain's producing capacity, and therefore her capacity to export capital, is greater than ever. Britain, therefore, appears likely to resume promptly her old function of exporting capital and the resources of the United States, having waited for the last four years, may attract that capital as they did before the war. In considering these problems it should be remembered that we are in a situation with many new and uncertain elements, any one of which may change the whole situation. However, we must take action and that compels us to weigh all the factors we can in the great tangle of new and untried political, financial and industrial elements.

The Reduction of Capital through Fear of War

The amount of surplus goods, that is to say, the amount of capital for investment in the world, and therefore the amount of real wealth in the world may be substantially reduced if the fear of war makes a widespread desire for industrial preparedness. If, as a possible war preparation, England, France, the United States and other countries start in to develop and maintain industries for which they are at an economic disadvantage, it will have a national result exactly like that produced by a conscript army. For example, shall the United States use rich manganese ores from Brazil, or poor ores from the home country? If we adopt the latter policy it will need two dollars of investment in America to one dollar in Brazil, two days of labor in America to one day of labor in Brazil. It will mean higher prices and therefore less riches in the United States through the failure to develop foreign investment and foreign trade.

German Payments as a Trade Factor

Germany may decide the export surplus of her enemies. If they compel her to pay for the war destruction or the war costs

or both, she may at the start borrow a little in neutral countries if she can establish the credit. But in the main, Germany can pay her enemies in only one way—goods, exported goods. If she had all the gold in the world, other nations would have no money, and it would in any case be only a drop in the bucket. What then? Goods. The facts of trade tend to make us forget that gold, like all other money, is but a medium for the exchange of goods. The only exception is when the gold happens to be the product of a mine in which case like coal it is goods, for the country first producing it. Countries settle trade differences with gold, but they can get the gold only by digging it out of the ground or by buying it with goods. As Germany is not a gold producer, she can get gold only by buying it with goods—with exports.

Her enemies wish to make her pay for the war. How may it be done? War claims against Germany may be treated in four different ways:

(a) *She May Be Required to Pay Money Secured by Selling Her Exports in the World Market.*

(b) *She May Be Required to Deliver Goods Directly to Her Enemies.*

(c) *She May Be Boycotted.*

(d) *German Labor May Be Utilized in Reconstruction Work.*

(a) *Money Payment*

This merely means exports, selling abroad. Goods will be used to purchase bills on London, Paris, Brussels, or New York, and these bills will be delivered to the representatives of the collecting country or countries. By this process, Germany may send the goods to neutrals and transfer the credit to England or France. Thus she may send cloth and machinery to Argentina in payment for wheat and meat that went to England or France. France paid Germany in 1871–73 chiefly with bills on London, but it was none the less a payment with exports, of which France showed at the time a distinct surplus over imports. Germany, receiving all these credits, showed a financial inflation and a speculation which, according to many authorities helped bring on the panic of 1873, and made its effects in Germany much more severe than in France.

Because of these war settlements Germany may be compelled to

show an export surplus of a billion or two per year for a term of years. If she does do this other countries will find it difficult to do the same thing at the same time, for Germany will by this process become a country of low prices, therefore, a country of low wages, a country without luxury. It will be most difficult for countries with higher prices and higher wages to compete with Germany in neutral markets in the sale of commodities where the competition is even: as in chemicals, textiles, machinery and other metal manufactures. The United States and the Allies will have high prices due to the inflation of war loans. Germany will probably have to repudiate all of her internal debt, and therefore her currency will not be inflated. This contrast will make all countries having an inflated currency extra good markets for German goods. By sales in those markets Germany will get credits to send to London and Paris to pay the war debts of those countries. Germany will in a sense be giving the goods away and the rest of the world will be trying to sell them in competition with her. The result of such a competition is plain. It will make a lower price level throughout the world, because it will increase supplies and large supplies always tend to reduce prices also. After ten or twenty years of paying for restoration Germany will have the greatest export trade ever seen except our recent war trade. She will have had to build up a trade first to get the credits to pass to her enemies. Her enemies will have the credits but Germany will have the trade.

Some people are much alarmed at this prospect. A part of this fear arises from the widespread belief that exports are necessarily a fine thing for a country and imports necessarily a bad thing. This eighteenth century idea called mercantilism was held so strongly by Napoleon Bonaparte that he freely permitted England to import grain from the Baltic in 1810 and 1811, thinking that he was thereby injuring her. There are elements of possible injury to the countries receiving heavy German payments but there are probably ways by which most of the injury can be avoided.

If we look at it in its simple economic light, this payment looks good, very good. For a term of years Germany becomes the servant of other nations to the extent of billions of dollars worth of goods which she produces and sells for their account, turning the

money over to them,—wealth, national wealth. That certainly looks good. It would undoubtedly help in the payment of national debts. England and France would hand money over to their citizens in exchange for bonds. The Belgian government could pay for the bread the Belgian Relief Commission distributed through the terrible years of war.

Here is a place where we must deal with the distinction between the government and the citizens of the country. There are two kinds of danger in this situation—one industrial and the other financial. The industrial danger lies in the possibility of the citizens living on this restoration fund for a time and getting out of the habit of supporting themselves so that when the payments end they would be in the position of the rich young man who lived on his father's money while it lasted and had not learned how to support himself when it was suddenly gone.

If the people of the fund-receiving country could keep up their work and their industries just the same this difficulty would not arise. This, however, is very difficult or impossible to guarantee. It depends on the individual choices of too many people. Some prefer to work and to save; others prefer to work some and to spend. Then from time to time industrial depression, the greatest ogre of modern industrialism, throws millions out of work whether they will or no. Here is a point where the financial danger of the restoration payment aggravates the industrial danger. It may tend to increase panics in the receiving countries as did the French payments to Germany 1871–73.

There is little doubt that the receipt of hundreds of millions a year of foreign credits by England, France, Belgium and Italy will be a menace by making speculation, inflation and panic that will require a careful and vigorous control of governmental finances that are already overinflated with war loans—paper money in fact. Undoubtedly one part of this financial control should be a continued, careful inspection and licensing of capital issues in all the countries receiving German money and probably in the United States also.

The ultimate industrial danger from the German restoration fund is that Germany will finish her payments with a huge industry and thoroughly established trade outlet for that industry, while her enemies have neither the industry or the outlet. This danger

if it is a danger, can be partly avoided by having the payments on the fund taper off, declining after a time at a small percentage each month until they gradually disappear. Under no condition should the rapidity of payment be left to Germany. In 1871–73, France placed Germany at a disadvantage by handing her money faster than she could digest it. If Germany were now left free to pay as she chooses she may seriously injure world finance.

The gradual ending of the payments would let international trade and industry make a gradual adjustment to the great change, so that its ending would be unnoticed, but the political effects of such a long drawn process might be world destroying.

A gradual ending would also dovetail with a process of foreign investment. The restoration fund should be and probably will be largely invested in foreign countries. German cloth, cement, machinery, glass, paper and general consumption goods may now go to Spain for French and Belgian account, and let French and Belgian financiers resume the work on hydro-electric, irrigation, power and public service enterprises that stopped so suddenly in 1914 when French and Belgian supplies were cut off by war paralysis. The building of a railroad in Brazil means that somebody furnishes equipment for the road and the goods used by the men, their families and the mules which do the work of building the road. Thus Germany might build a railroad in Brazil for English account by sending cars, rails, steam shovels, dynamite, cement, and locomotives to Brazil. She could also send clothing, shoes, pocket knives, playing cards and phonographs for the men and also gasoline, tobacco, flour, and bacon, mules and bales of hay which she might secure in the United States, Argentina and Brazil, sending potash to those countries in payment. The financial items in the transaction would be wages paid and certain pieces of paper, bills of exchange, written in terms of gold. Thus the surplus exports which produce Germany's restoration fund may be used to equip enterprises in Russia, Asia Minor, Brazil and even in the United States for the account of English, French and Belgian investors who will fatten their imports with the return from these investments. The income from these investments should gradually mount as the annual payment of restoration money declines, so that its ending would be nearly unnoticed. The period of payment must end, however, with Germany pos-

sessed of large producing capacity and large exports while England and France will in all probability have relatively small exports and large imports—this surplus of imports meaning, of course, that the nations were rich with foreign investments on which they were receiving returns.

The Allies, fearing the development of German foreign trade even when they get a good part of the proceeds, may try to get settlement from Germany without permitting her to build up *foreign trade connections.* With this end in view, they might have her send goods to themselves.

(b) *Delivery of Produce by Germany Directly to Allied Governments*

This would in part keep Germany from developing trade connections and good will, which are very important, but she would *be compelled to have* the producing capacity and there is little reason to think that she could be compelled to pay as much in kind as she could in cash. A government could easily take potash, sugar, potato flour, rails, plain cloth, standard machines and standard bulk chemicals, but it is difficult to conceive of a government taking toys, women's wearing apparel, ribbons, pocket knives, cameras, drugs and perfumery—types of the best income-yielding export trade. Therefore, payment in kind only amounts to a renunciation of a large part of the possible payment.

(c) *Boycotting Germany*

Some people are taking the position that they will punish Germany by not using German goods. This is the exact opposite of receiving restoration money. It is an extreme form of the renunciation of German restoration money. It means, in short, that we have chosen to do things for ourselves rather than have Germany do them for us. It is more nearly an expression of feeling than of thought.

(d) *Reconstruction by German Labor*

Perhaps the safest thing that could be done would be the keeping of the German prisoners for the actual physical work of the restoration of France and Belgium. They could be relieved by other Germans. They could receive visits from their families, or even have members of their families with them. They could be fed and clothed from home, but this given number of Germans

would stay in the war area and work until restoration was complete. This would leave the man power of France and Belgium free to restore their shattered trade. It would be the policy with the least possible trade danger. Unfortunately it can account for only a small part of the war cost, most of which, is for a past transaction and if paid must be in some kind of international payment.

Whatever the form of German payment, if she pays, it will be through exports, and export surplus, to which the world trade must adjust itself in accord with economic law rather than political edict. Trade can violate economic law only by paying an economic penalty.

Automatic Factors in Trade Settlement

Certain economic conditions tend automatically to produce certain results, regardless of the laws of nations.

The way in which trade situations tend to check and correct themselves is well shown by the derangement of exchange that prevailed during the war when the United States would not export gold and could not export goods. The *Annalist*, New York, November 4, 1918, said:

"We have always had a balance in our favor in foreign trade, and we are ambitious to increase our exports. How are foreign countries going to settle balances in our favor? We have seen since we got into the war a very serious derangement of the exchanges, because gold was no longer available for settling balances. At this very time a man in Canada who has a payment to make in the United States must pay about $2 per $100 for exchanges. Only a few months ago a resident of this country who had a bill to pay in Spain was obliged to pay about $150 to get a draft for $100. Of course such conditions are ruinous to business relations. No trade could stand that in normal times. How, then, can we hope to increase our exports or even collect the interest payments due us, not to speak of payments on the principal?"

The Change of United States from Exporter to Trader

Many students of trade and finance are agreed that economic forces, of which the Spanish case above mentioned is a type, will compel the United States in a few years to do as the investor na-

tion does—import more than she exports, as England, investor nation, has done for many years. This will probably begin after the first urgent calls of famine and reconstruction in Europe have been met by American exports, which until that time will continue larger than imports and increase our investments and our prospect of future returns.

The arrival of this condition of import surplus will doubtless produce many readjustments in America, for some of us have naturally come to feel that many of the temporary industrial changes produced by the war were permanent. We have, because of loans, largely government loans, been an exporter to a pleading world, the most extensive exporter ever seen. The history of trade during the war is the history of peoples begging the United States for goods and also the history of the scientific organized efforts of the American government to reduce trade with the neutral world that we might concentrate our industrial power on the war. The list of great increases in our exports between 1914 and 1917 shows how astonishingly the war affected our trade, either by taking our produce or by giving us the chance to supply temporarily the markets normally supplied by Europe.

	1914 Export value million dollars	1917 Export value million dollars
Brass and manufactures of	4	86
Explosives	6	802
Firearms	3	95
Zinc	.4	65
Copper and products	146	322
Machinery	115	261
Automobiles	32	118
Horses and mules	4	86
Petroleum and products	157	246
Breadstuffs	165	588
Meat and dairy products	146	403
Sugar and molasses	4	81
Leather and tanned skins	36	108
Leather manufactures	20	43
Cotton manufactures	51	136
	889.4	3,440

The export increase in these fifteen classes alone in three years amounts to 2,550 millions—a sum greater than the entire export of 1914.

With the end of our exports for reconstruction, *financed by loans*, government and private, we will reach the end of our unparalleled orgy of exports. We will, of course, continue to export but we will no longer take pay in promises and feel the pinch of war poverty. We will take pay in goods and services, and have present wealth rather than future wealth. We have for a time been merely an exporter with incidental imports. We must again become a trader, buying as well as selling, importing as well as exporting. This will be a great change from the past four years. The greatest single reconstruction that America faces is the reconstruction of her foreign trade.

UNITED STATES FOREIGN TRADE

BRIEF SUMMARY for 1912–1918

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2. United States Exports and Imports by Continents. (Percentages.)
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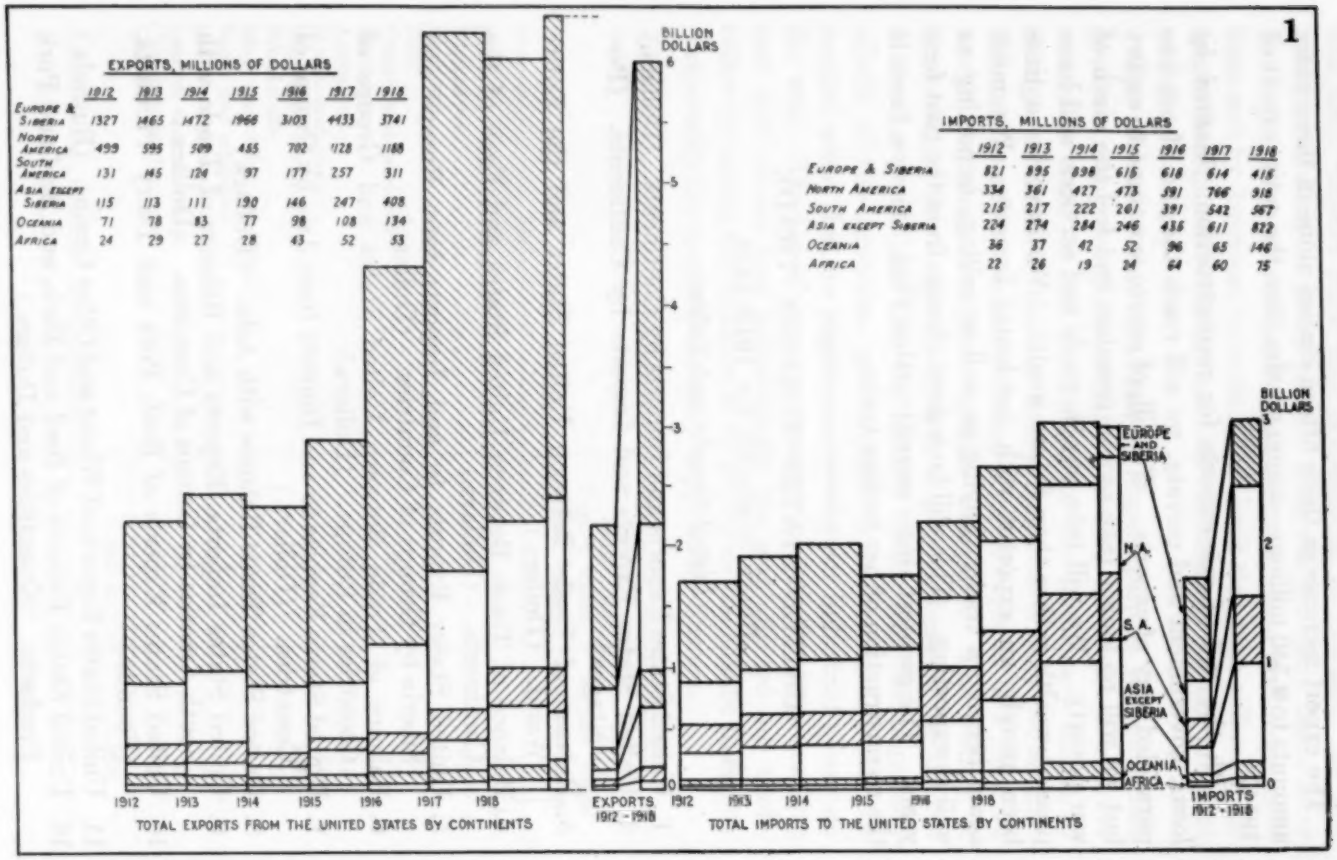
4. Balance of Trade Between United States and Each of the Continents. (Dollars.)
5. United States Exports to and Imports from Europe and Siberia by Groups of Countries. (Dollars.)
6. Balance of Trade Between United States and Groups of Countries in Europe. (Dollars.)
7. United States Exports to and Imports from Asia by Groups of Countries. (Dollars.)
8. United States Trade Balance with Asia. (Dollars.)
9. United States Imports, Exports and Balance of Trade with South America by Groups of Countries. (Dollars.)
10. United States Exports of Beef, Pork and Dairy Products. (Pounds.)
11. United States Exports of Wheat and Other Grains. (Bushels.)
12. United States Exports of Beef and Pork, and Beef and Pork Products. (Quantities and Dollars.)



Shows that the greatest war change in our foreign trade has been the increase in exports to Europe and the decline in imports from Europe. Imports from Asia and South America have also increased greatly.

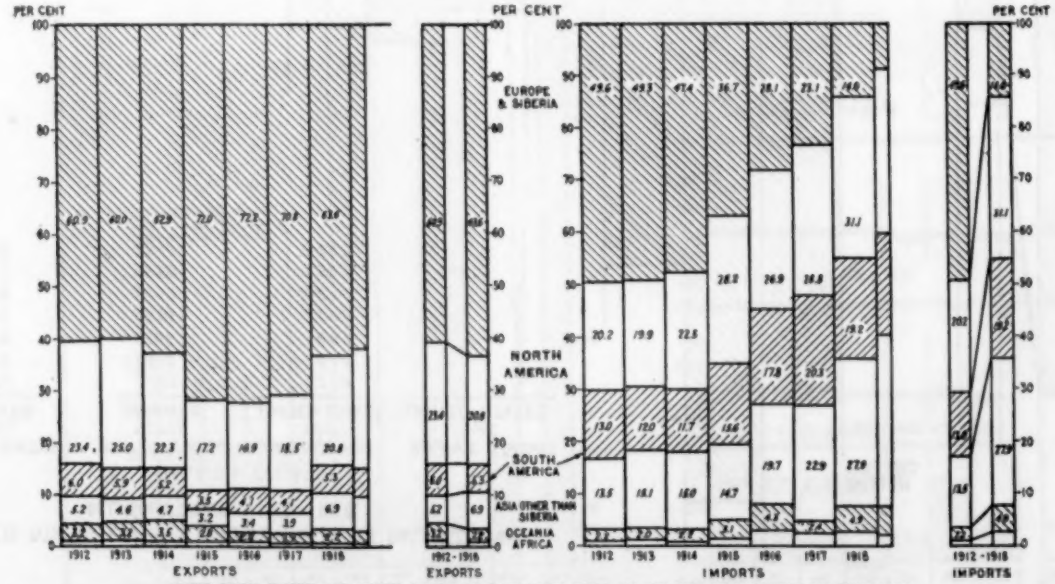
PERCENTAGE AND VALUE OF THE TRADE OF THE UNITED STATES WITH THE VARIOUS CONTINENTS, FISCAL YEARS 1912 - 1918. 2

EXPORTS FROM THE UNITED STATES TO ALL CONTINENTS BY VALUE (MILLION DOLLARS) AND PERCENTAGE OF TOTAL

	1912	1913	1914	1915	1916	1917	1918	1912	1913	1914	1915	1916	1917	1918
EUROPE & SIBERIA	1342	1480	1487	1994	3130	4454	3772	60	60	62	72	72	70	63
NORTH AMERICA	518	617	528	477	733	1163	1237	23	25	22	17	16	18	20
SOUTH AMERICA	132	148	124	99	180	259	314	6	5	5	3	4	4	5
ASIA OTHER THAN SIBERIA	116	113	112	91	147	260	412	5	4	4	3	3	3	6
OCEANIA	71	79	83	77	98	109	134	3	3	3	2	2	1	2
AFRICA	24	29	27	28	43	52	55	1	1	1	1	1	.8	.9

IMPORTS INTO THE UNITED STATES FROM ALL CONTINENTS BY VALUE (MILLION DOLLARS) AND PERCENTAGE OF TOTAL

	1912	1913	1914	1915	1916	1917	1918	1912	1913	1914	1915	1916	1917	1918
EUROPE & SIBERIA	820	895	698	615	618	614	415	49	49	47	36	28	23	14
NORTH AMERICA	334	361	427	473	591	766	918	20	19	22	28	26	28	31
SOUTH AMERICA	215	217	223	261	391	542	567	13	12	11	15	17	20	19
ASIA OTHER THAN SIBERIA	274	274	284	246	434	611	823	13	15	15	14	19	23	27
OCEANIA	36	37	42	52	96	85	146	2	2	2	3	4	3	4
AFRICA	22	26	19	24	64	60	75	1	1	1	1	2	2	2



UNITED STATES EXPORTS AND IMPORTS BY CONTINENTS FOR FISCAL YEARS 1912-1918 AND JULY - SEPTEMBER 1918, PERCENTAGE.

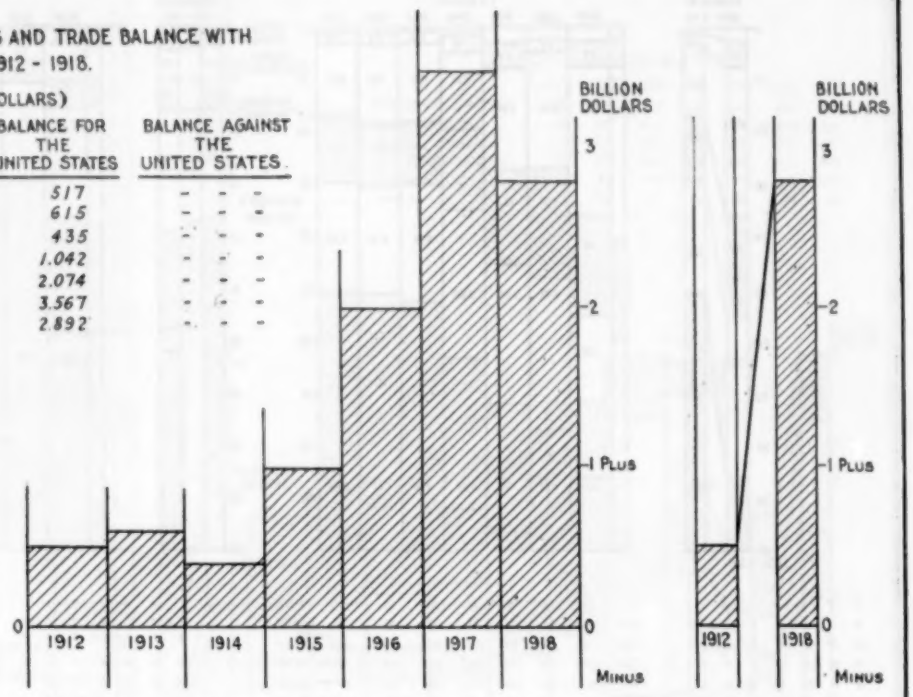
Imports and exports on a percentage basis show that the most conspicuous change has been a decline in imports from Europe and an increase from every other continent. Some return toward pre-war proportions may be expected. The fairly constant proportions for our exports to the various continents show that we have been supplying the warring countries and also temporarily supplying the distant markets they have been too busy to supply.

3

UNITED STATES EXPORTS, IMPORTS AND TRADE BALANCE WITH ALL COUNTRIES 1912 - 1918.

(MILLION DOLLARS)

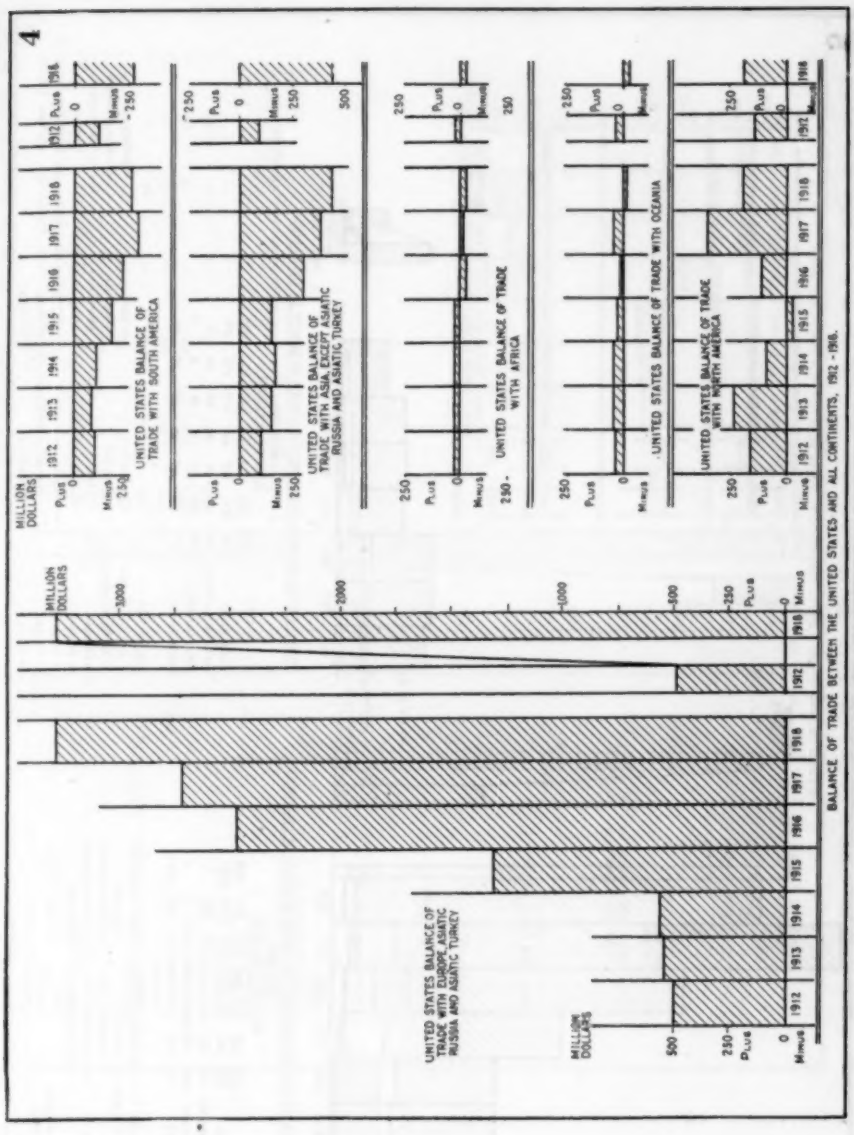
	UNITED STATES TOTAL EXPORTS	UNITED STATES TOTAL IMPORTS	BALANCE FOR THE UNITED STATES	BALANCE AGAINST THE UNITED STATES
1912	2.170	1.653	517	- - -
1913	2.428	1.813	615	- - -
1914	2.329	1.893	435	- - -
1915	2.716	1.674	1.042	- - -
1916	4.272	2.197	2.074	- - -
1917	6.227	2.659	3.567	- - -
1918	5.838	2.946	2.892	- - -



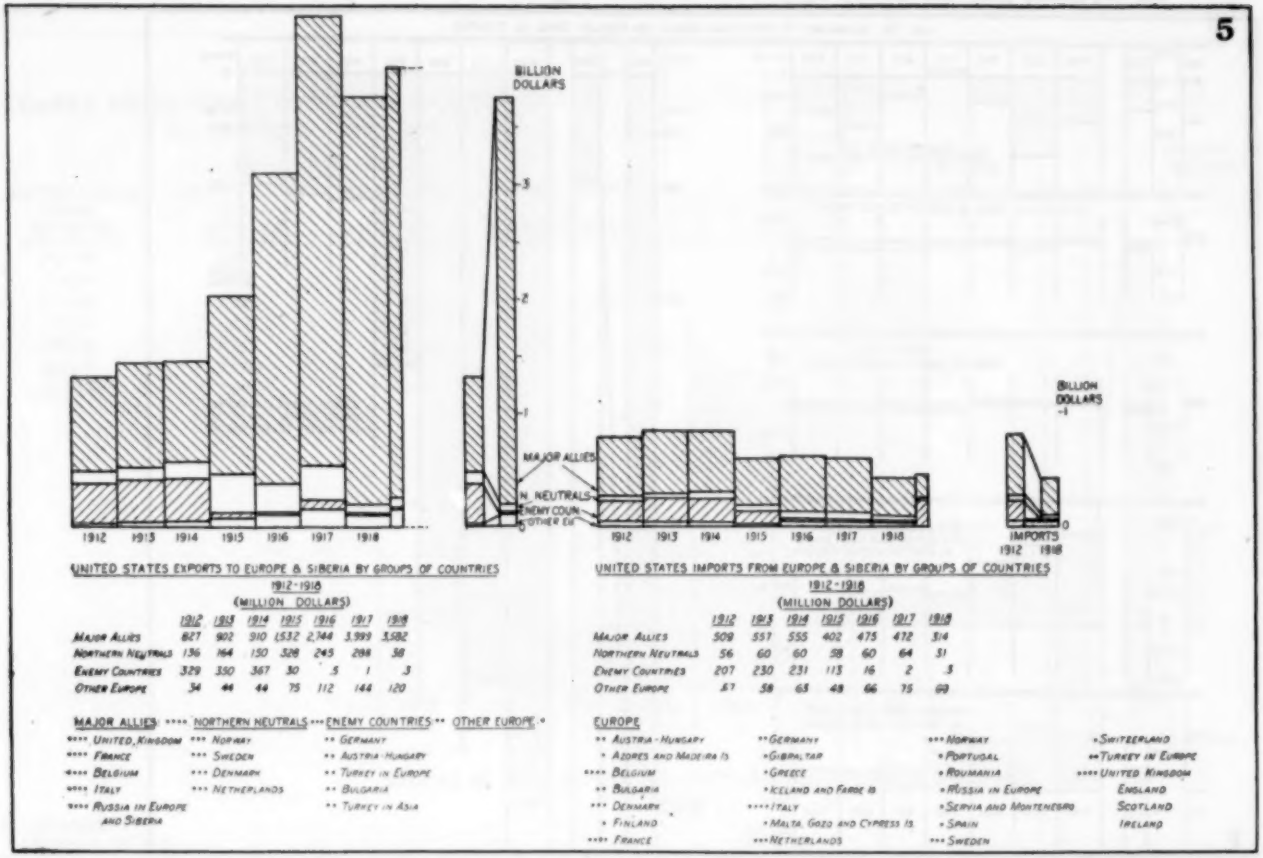
BALANCE OF TRADE BETWEEN THE UNITED STATES AND THE ENTIRE WORLD - 1912 - 1918

SCALE: 500,000,000 Dollars to the inch.

This jump from five hundred million dollars to three billion dollars is because of the enormous borrowings of Europe.


4
MILLION DOLLARS
Plus
0
Minus
1912
1913
1914
1915
1916
1917
1918
UNITED STATES BALANCE OF TRADE WITH SOUTH AMERICA
UNITED STATES BALANCE OF TRADE WITH ASIA, EXCEPT ASIATIC RUSSIA AND ASIATIC TURKEY
UNITED STATES BALANCE OF TRADE WITH AFRICA
UNITED STATES BALANCE OF TRADE WITH OCEANIA
UNITED STATES BALANCE OF TRADE WITH NORTH AMERICA
UNITED STATES BALANCE OF TRADE WITH EUROPE ASIATIC RUSSIA AND ASIATIC TURKEY
BALANCE OF TRADE BETWEEN THE UNITED STATES AND ALL CONTINENTS, 1912 - 1918.

The stupendous surplus of exports to Europe and the increasing surplus of imports from South America and Asia.



UNITED STATES EXPORTS TO EUROPE & SIBERIA BY GROUPS OF COUNTRIES
1912-1918
(MILLION DOLLARS)

	1912	1913	1914	1915	1916	1917	1918
Major Allies	827	902	910	1532	2,744	3,999	3,582
Northern Neutrals	136	164	150	328	245	298	38
Enemy Countries	329	350	367	30	5	1	3
Other Europe	34	44	44	75	112	144	120

UNITED STATES IMPORTS FROM EUROPE & SIBERIA BY GROUPS OF COUNTRIES
1912-1918
(MILLION DOLLARS)

	1912	1913	1914	1915	1916	1917	1918
Major Allies	509	551	555	402	475	472	314
Northern Neutrals	56	60	60	58	60	64	51
Enemy Countries	207	230	231	113	16	2	3
Other Europe	67	58	65	48	66	75	69

MAJOR ALLIES: **** UNITED KINGDOM; **** FRANCE; **** BELGIUM; **** ITALY; **** RUSSIA IN EUROPE AND SIBERIA

NORTHERN NEUTRALS: *** NORWAY; *** SWEDEN; *** DENMARK; *** NETHERLANDS

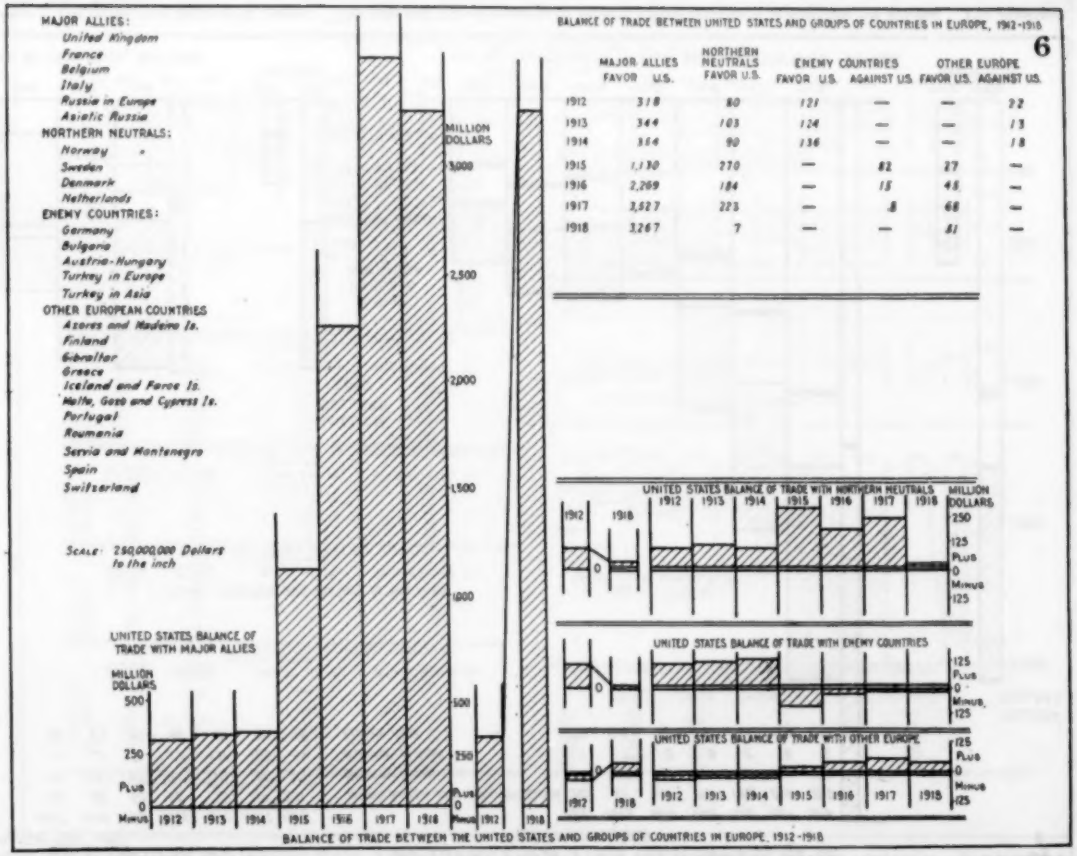
ENEMY COUNTRIES: ** GERMANY; ** AUSTRIA-HUNGARY; ** TURKEY IN EUROPE; ** BULGARIA; ** TURKEY IN ASIA

OTHER EUROPE: * SWITZERLAND; ** TURKEY IN EUROPE; **** UNITED KINGDOM; ENGLAND; SCOTLAND; IRELAND

EUROPE

** AUSTRIA-HUNGARY; * AZORES AND MADEIRA IS; **** BELGIUM; ** BULGARIA; *** DENMARK; * FINLAND; **** FRANCE; ** GERMANY; *GIBRALTAR; *GREECE; *ICELAND AND FAROE IS; ****ITALY; * MALTA, GOZO AND CYPRESS IS; ***NETHERLANDS; *** NORWAY; *PORTUGAL; *ROUMANIA; *RUSSIA IN EUROPE; *SERVIA AND MONTENEGRO; *SPAIN; *** SWEDEN; *SWITZERLAND; **TURKEY IN EUROPE; **** UNITED KINGDOM; ENGLAND; SCOTLAND; IRELAND

This graph exhibits the importance of our exports to the Allies and the service of the northern neutrals to the central empires, as shown by the amazing substitution of exports to northern neutrals for exports to central empires in 1915, 1916 and 1917. The influence of our War Trade Board closed this door in 1918.



Nearly a tenfold increase in surplus to the Allies. The European trade was chiefly war trade—to Allies or to central empires via northern neutrals.

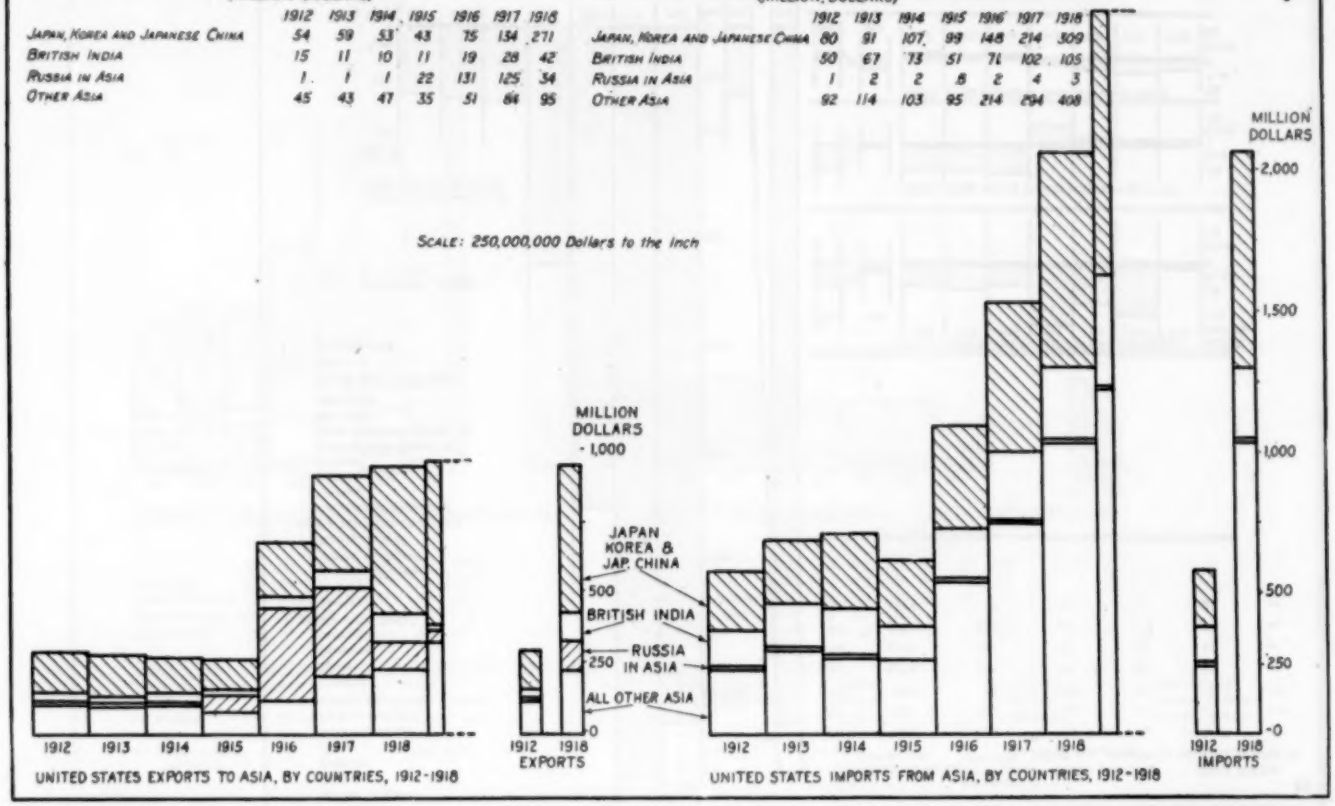
7

UNITED STATES EXPORTS TO ASIA, BY COUNTRIES, 1912-1918
(MILLION DOLLARS)

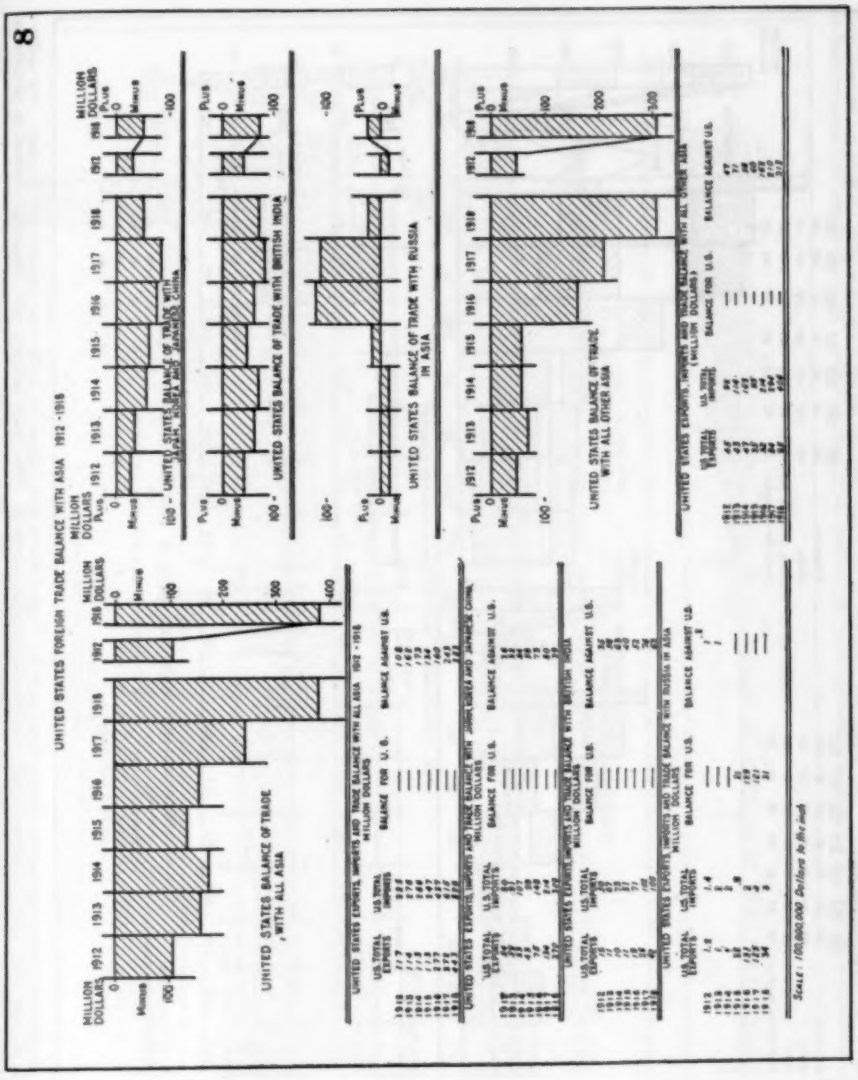
	1912	1913	1914	1915	1916	1917	1918
JAPAN, KOREA AND JAPANESE CHINA	54	59	53	43	75	134	271
BRITISH INDIA	15	11	10	11	19	28	42
RUSSIA IN ASIA	1	1	1	22	131	125	34
OTHER ASIA	45	43	47	35	51	64	95

UNITED STATES IMPORTS FROM ASIA, BY COUNTRIES, 1912-1918
(MILLION DOLLARS)

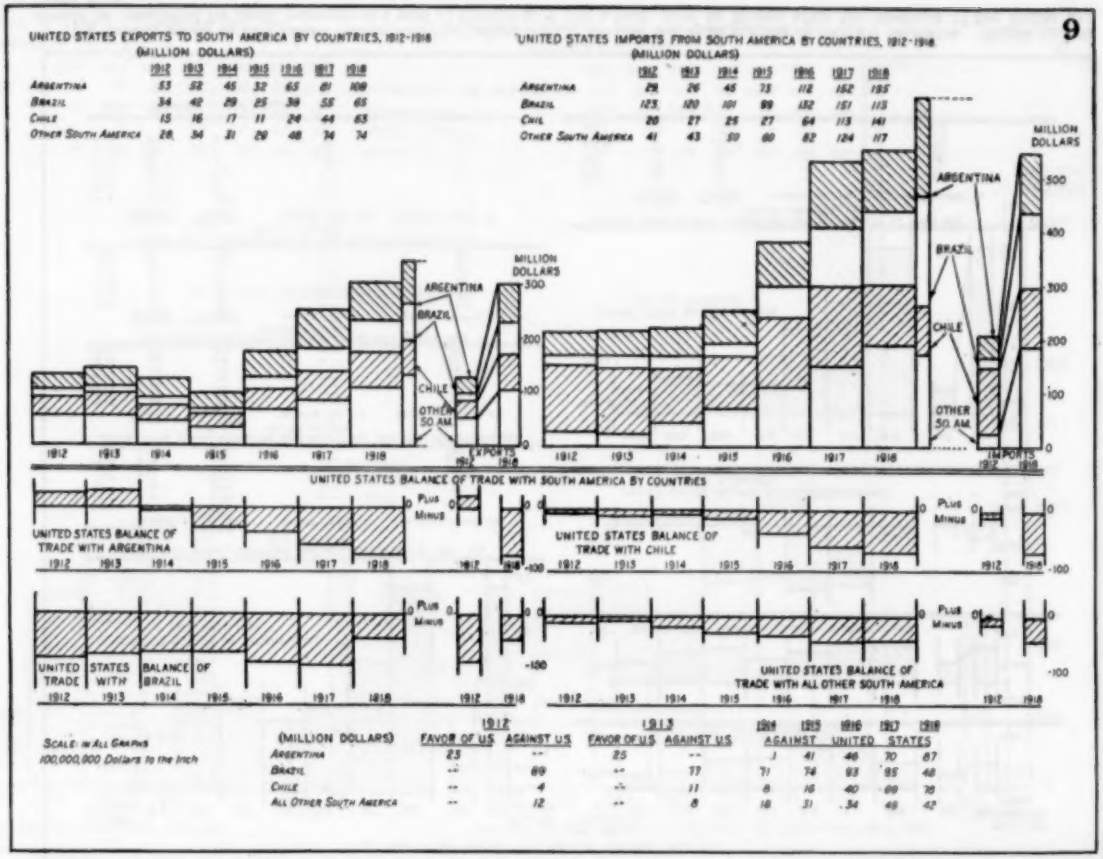
	1912	1913	1914	1915	1916	1917	1918
JAPAN, KOREA AND JAPANESE CHINA	80	91	107	99	148	214	309
BRITISH INDIA	50	67	73	51	71	102	105
RUSSIA IN ASIA	1	2	2	8	2	4	3
OTHER ASIA	92	114	103	95	214	294	408



The rise in imports from Asia. The great war trade with Japan. The rise and fall of exports to Siberia which consisted of supplies for Russia. The constant absence of compensating imports from Siberia.

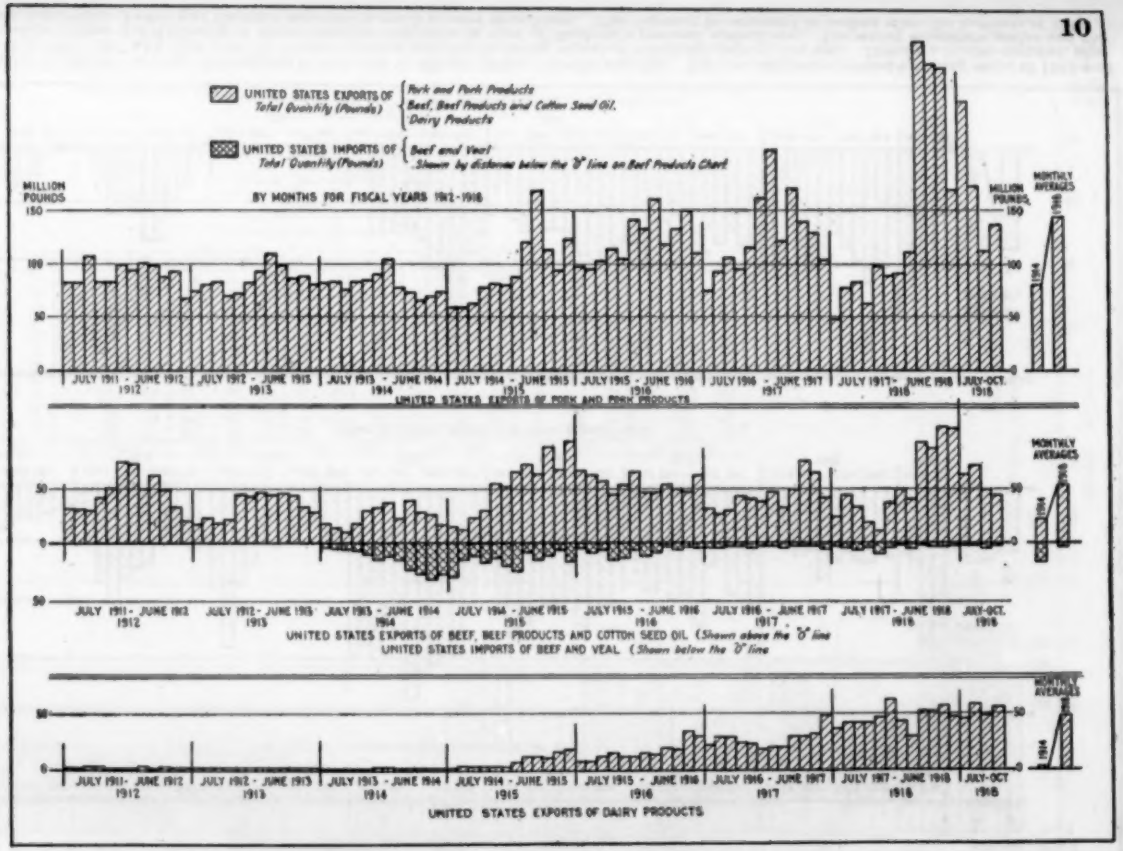


By passing goods to the United States, Asia has helped supply us with our huge surplus to warring countries. Russia in Asia should be considered for trade purposes as a part of Europe as it was a back door to Russia after the blockade of the Baltic and Black Seas.

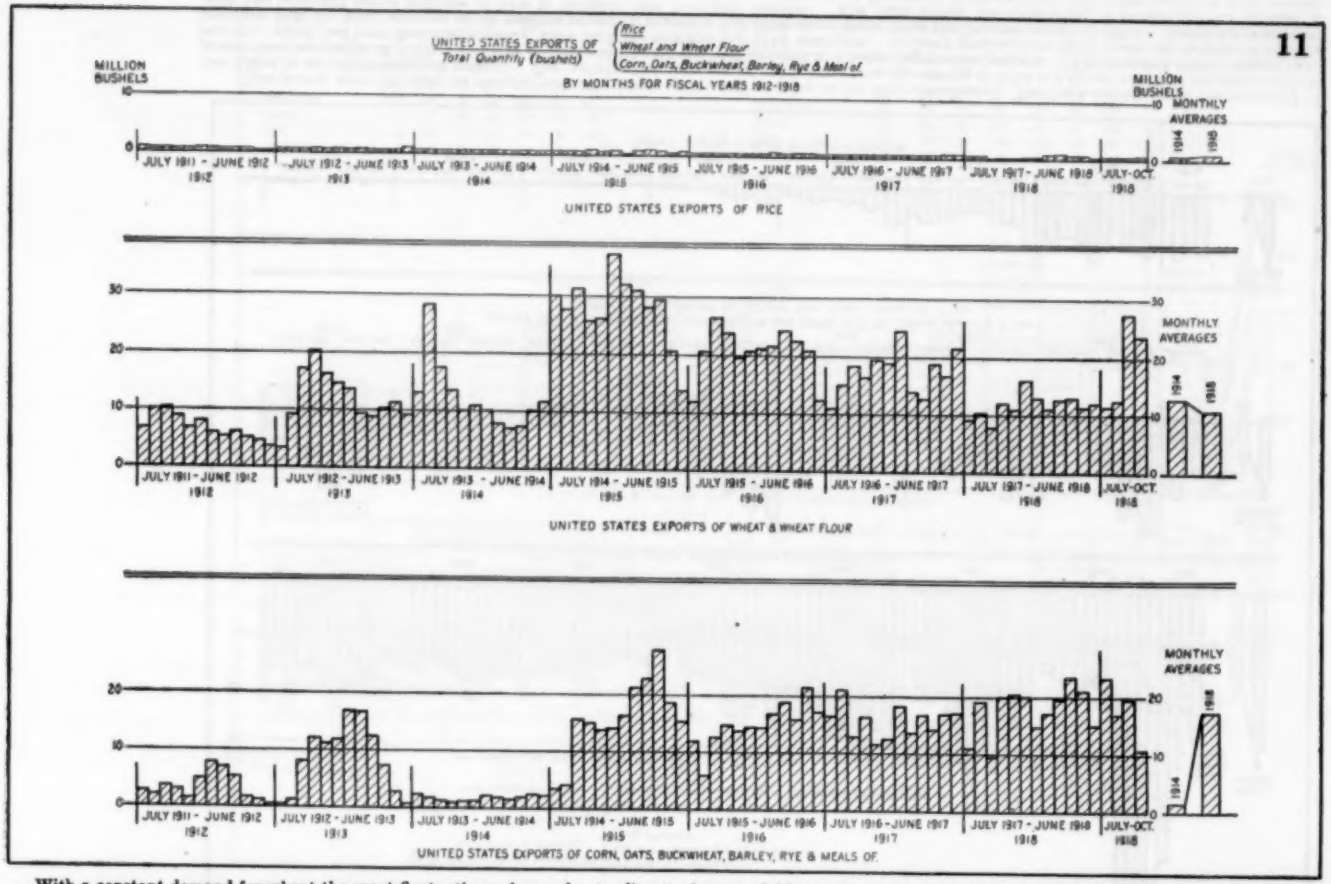

9
UNITED STATES EXPORTS TO SOUTH AMERICA BY COUNTRIES, 1912-1918
(MILLION DOLLARS)
UNITED STATES IMPORTS FROM SOUTH AMERICA BY COUNTRIES, 1912-1918
(MILLION DOLLARS)
MILLION DOLLARS
ARGENTINA
BRAZIL
CHILE
OTHER SO. AM.
EXPORTS
IMPORTS
UNITED STATES BALANCE OF TRADE WITH SOUTH AMERICA BY COUNTRIES
UNITED STATES BALANCE OF TRADE WITH ARGENTINA
UNITED STATES BALANCE OF TRADE WITH CHILE
UNITED STATES BALANCE OF TRADE WITH BRAZIL
UNITED STATES BALANCE OF TRADE WITH ALL OTHER SOUTH AMERICA
PLUS
MINUS
SCALE: IN ALL GRAPHS
100,000,000 Dollars to the Inch

(MILLION DOLLARS)	1912 FAVOR OF U.S.	1912 AGAINST U.S.	1913 FAVOR OF U.S.	1913 AGAINST U.S.	1914	1915	1916	1917	1918
					AGAINST UNITED STATES				
Argentina	23	--	25	--	1	41	46	70	87
Brazil	--	69	--	77	71	74	93	95	48
Chile	--	4	--	11	8	16	40	69	78
All Other South America	--	12	--	8	18	31	34	48	42

As with Asia, large exports from South America to the United States have helped us equip this country and Europe. Our unfavorable balance with these important supply countries has steadily mounted. The trade balance with Argentina showed an interesting shift during the war. The British embargo on wool from her colonies sent the United States to Argentina for wool.


10
UNITED STATES EXPORTS OF Total Quantity (Pounds)
Pork and Pork Products
Beef, Beef Products and Cotton Seed Oil.
Dairy Products
UNITED STATES IMPORTS OF Total Quantity (Pounds)
Beef and Veal
Shown by distance below the 0 line on Beef Products Chart
MILLION POUNDS
BY MONTHS FOR FISCAL YEARS 1912-1918
MONTHLY AVERAGES
JULY 1911 - JUNE 1912
JULY 1912 - JUNE 1913
JULY 1913 - JUNE 1914
JULY 1914 - JUNE 1915
JULY 1915 - JUNE 1916
JULY 1916 - JUNE 1917
JULY 1917 - JUNE 1918
JULY-OCT. 1918
UNITED STATES EXPORTS OF PORK AND PORK PRODUCTS
UNITED STATES EXPORTS OF BEEF, BEEF PRODUCTS AND COTTON SEED OIL (Shown above the 0 line
UNITED STATES IMPORTS OF BEEF AND VEAL (Shown below the 0 line
UNITED STATES EXPORTS OF DAIRY PRODUCTS

This shows, save for dairy products, rates of increase which will surprise us by their smallness. The food exports were concentrated on the Allies to an unprecedented extent. The substantial increase of pork exports in the spring of 1918 is a direct result of the national food production campaign of 1917. The war opened with American beef imports at a larger figure than exports. The imports nearly stopped and exports, which had been declining steadily, have slightly exceeded the 1912 amounts. In dairy products we have made an enormous relative increase but the total amount of 50 million pounds a month is but little more than twice the Danish export of 1916. American condensed milk has probably saved millions of lives in Belgium and Northern France. The high prices, the disbanding of armies and the increase in the use of vegetable fats may be expected to cut this sharply and the restoration of European herds will in a few years nearly or quite restore the pre-war condition which was one of steady decline in meat exports with a small or negligible export of dairy products.

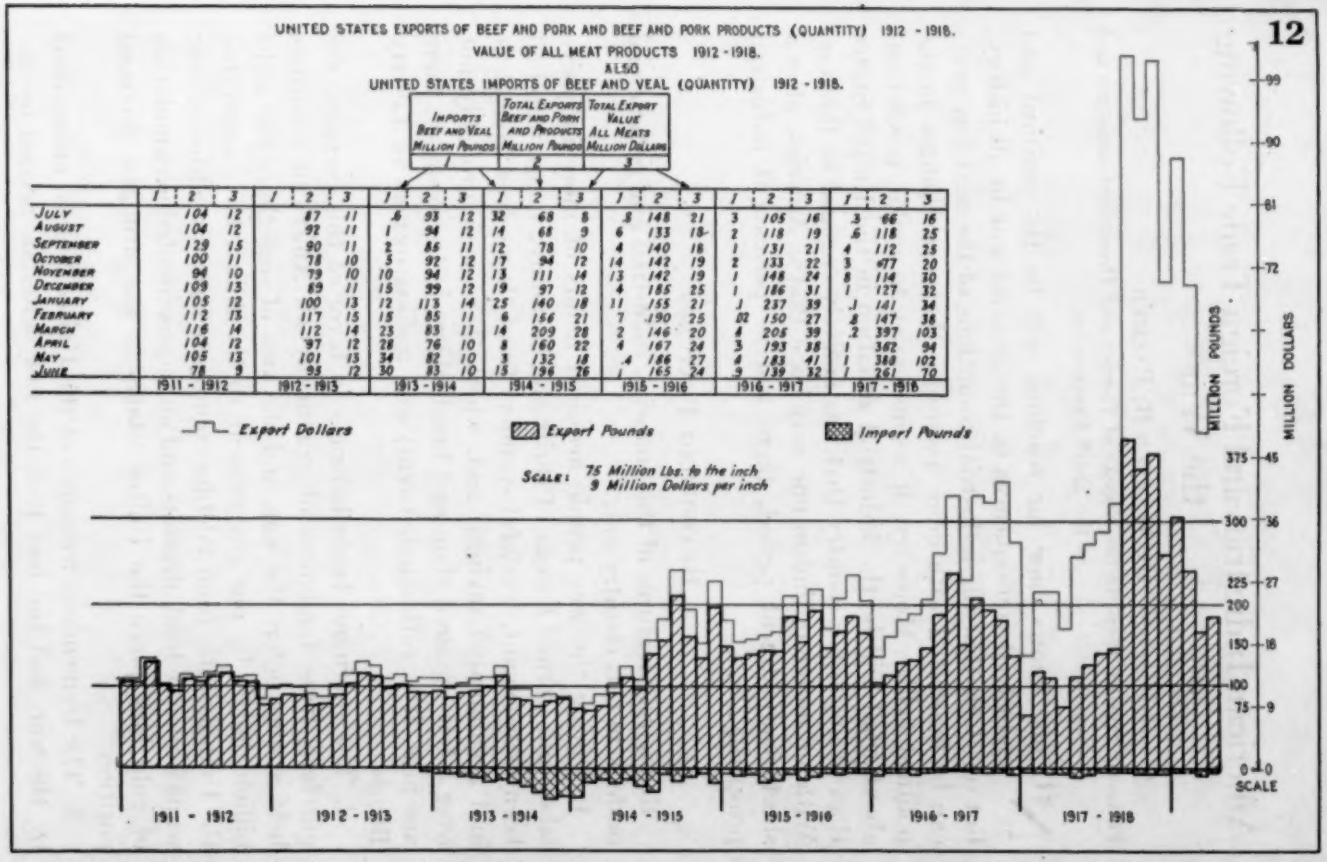

11
UNITED STATES EXPORTS OF
Total Quantity (bushels)
Rice
Wheat and Wheat Flour
Corn, Oats, Buckwheat, Barley, Rye & Meal of
BY MONTHS FOR FISCAL YEARS 1912-1918
MILLION BUSHELS
MONTHLY AVERAGES
JULY 1911 - JUNE 1912
JULY 1912 - JUNE 1913
JULY 1913 - JUNE 1914
JULY 1914 - JUNE 1915
JULY 1915 - JUNE 1916
JULY 1916 - JUNE 1917
JULY 1917 - JUNE 1918
JULY-OCT. 1918
UNITED STATES EXPORTS OF RICE
UNITED STATES EXPORTS OF WHEAT & WHEAT FLOUR
UNITED STATES EXPORTS OF CORN, OATS, BUCKWHEAT, BARLEY, RYE & MEALS OF.

With a constant demand for wheat the great fluctuations of crop due to climate give a variable surplus. The two successive record-breaking crops of 1914 and 1915 and the mediocre ones in 1916, 1917 and 1918 gave the United States a steadily declining export of wheat throughout the war. Despite a famine demand, after the war we may be expected to resume our decline as a wheat exporter especially in view of England's restored agriculture. The wheat substitute grains and the fodder grains *viz.*, corn, oats, buckwheat, barley and rye were exported in much greater quantities. This too may be expected to decline after the harvests of 1919.

UNITED STATES EXPORTS OF BEEF AND PORK AND BEEF AND PORK PRODUCTS (QUANTITY) 1912 - 1918.
VALUE OF ALL MEAT PRODUCTS 1912 - 1918.
ALSO
UNITED STATES IMPORTS OF BEEF AND VEAL (QUANTITY) 1912 - 1918.

	Imports Beef and Veal Million Pounds 1	Total Exports Beef and Pork and Products Million Pounds 2	Total Export Value All Meats Million Dollars 3

	1911 - 1912			1912 - 1913			1913 - 1914			1914 - 1915			1915 - 1916			1916 - 1917			1917 - 1918		
	1	2	3	1	2	3	1	2	3	1	2	3	1	2	3	1	2	3	1	2	3
July		104	12		87	11	.6	93	12	32	68	8	.8	148	21	3	105	16	.3	66	16
August		104	12		92	11	1	94	12	14	68	9	6	133	18	2	118	19	.6	118	25
September		129	15		90	11	2	86	11	12	78	10	4	140	18	1	131	21	4	112	25
October		100	11		78	10	5	92	12	17	94	12	14	142	19	2	133	22	3	977	20
November		94	10		79	10	10	94	12	13	111	14	13	142	19	1	148	24	8	114	30
December		109	13		89	11	15	99	12	19	97	12	4	185	25	1	186	31	1	127	32
January		105	12		100	13	12	113	14	25	140	18	11	155	21	.1	237	39	.1	141	34
February		112	13		117	15	15	85	11	6	166	21	7	190	25	.02	150	27	.8	147	38
March		116	14		112	14	23	83	11	14	209	28	2	146	20	4	206	39	.2	397	103
April		104	12		97	12	28	76	10	8	160	22	4	167	24	3	193	38	1	362	94
May		105	13		101	13	34	82	10	3	132	18	.4	186	27	4	183	41	1	388	102
June		78	9		95	12	30	83	10	15	196	26	1	165	24	.9	139	32	1	261	70



This graph, showing beef and pork exports combined, and the total value of meat exports, presents the quantity in the shaded area and the value in the red line —a good illustration of the way actual increase of goods and price inflation have combined to make a great value.

American Industries and Foreign Trade Following the War

By Walter B. Palmer

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NO one knows how far reaching will be the political and industrial consequences of the greatest war in all history, but one feels that the industrial conditions of the next few years can be forecasted with more assurance than can changes in the political field. Moreover, it seems easier to make predictions about what will be the industrial situation in the United States than in any other country that was actively engaged in the war. Without undue optimism one may hope that in America, after a short readjustment period, there will be permanent industrial prosperity.

Reassuring Features

Reassuring features of the financial, industrial and commercial outlook in this country are:

1. During the war people acquired habits of more intensive labor and learned lessons of thrift and economy; many who had been extravagant, wasteful spenders freed themselves from debt and accumulated savings; and, where there were probably not over a few hundred thousand bondholders in the country, there are now, it is estimated, twenty-one million owners of Liberty Bonds.

2. The enormous trade balances in favor of this country, the purchase from foreigners of practically all American securities held abroad before the war, and the loan of something like eight billion dollars by our government to the Allies, have converted the United States from a debtor country to a great creditor nation; while immense bank deposits and an unprecedented accumulation of gold here place the United States in the strongest financial position.

3. The tremendous resources of the United States, unimpaired by the war, and the fact that the raw materials needed by the

more important industries are produced here, place this country in the most favorable economic position.

4. Manufacturers and financiers, many of whom were formerly largely indifferent to foreign trade, are determined to hold a large share of the vast trade with other countries which they have recently acquired and which became during the war much larger than the foreign trade that any country had ever enjoyed at any time.

When hostilities ended with the armistice last November, American industries had experienced unexampled prosperity, some for three years and some for four years. The only exceptions were what the government considered "non-essential industries," which had been restricted as to supplies, but these industries, producing luxuries or semi-luxuries, doubtless will participate in the general prosperity that may be expected when economic dislocations caused by the war have been adjusted.

American industries were stimulated by the demands of war to colossal production. The war ended unexpectedly, the demand for war munitions ceased suddenly and many government contracts were cancelled. Some time is necessary for a readjustment from a war to a peace basis. During this interval business will be relaxed. Prices that reached heights far beyond any ever before known will naturally fall, and during a falling market merchants and their customers will be cautious about buying. How long will be the time of transition no one knows, but it would be better for the country that changes be not too abrupt. On account, however, of unprecedented conditions, it may be expected that the time of industrial readjustment will be comparatively short.

History shows that after victorious wars nations have eras of prosperity. Instance the expansion of British industry and foreign trade after the Napoleonic wars. For eight years after our Civil War there was great industrial activity in the United States. Our national wealth amounted to $514 per capita in 1860 and $780 in 1870.

The waste places of the earth, devastated by war, must be restored, and the materials for reconstruction, whether raw materials or finished products, must to a large extent be furnished by the United States. Since 1914 the United States has supplied goods to countries all over the globe, and never before were stocks

of merchandise so low as they were when hostilities ceased. Even in the United States economies practised during the war have had the effect of reducing purchases, especially of goods of the more expensive grades. Building operations, except of factories for war munitions, have largely been suspended for two or three years. During the war there was practically no railroad construction in any country, while railroad equipment deteriorated.

Almost from the beginning of the war between the Allies and the Central Powers, and especially during the nineteen months between the declaration of war by the United States and the armistice, American factories were operated at peak-load capacity. Overtime work has stopped and many factories have slowed down, while some have closed down pending a readjustment of labor and market conditions. But the demands of both domestic and foreign trade will soon be so great that there will necessarily be great industrial activity, not so much as during the war, but probably more than during any other period in our history.

The economic position of the United States is dominant. Before the war began in Europe, our manufacturers in some lines had established a large, prosperous and rapidly developing export business. This commerce has grown by leaps and bounds during the war period. With ample capital and abundant raw materials, and with factory organizations adapted for large unit production, there is little reason for doubt that our industries can command hereafter a foreign trade much larger than it was previous to 1914. The dislocation of industry has been less in the United States than in any other belligerent nation, except perhaps Great Britain and Italy, and it is not clear that those countries should be excepted. The Germans, during their occupancy of the industrial sections of France and Belgium, demolished factories and destroyed machinery they did not remove. Neither Italy nor Austria-Hungary has been a competitor of the United States in foreign commerce, except in small lines. Germany has been a strong competitor, but, deprived of valuable coal and iron mines, stripped of colonies, entirely dependent on other countries for raw materials, oppressed with enormous war debts and indemnities, her selling organization and credit system destroyed, Germany's former industrial prosperity and former position in international trade cannot, for many years at least, be regained.

WAGES AND PRICES

The most uncertain problem in the future of industry, in America as well as Europe, is that of labor, and this involves prices. Wages and prices, which are always closely related, rose during the war to figures never before reached or even approached. Undoubtedly these high levels will now be reduced, but therein lies the danger. Labor will resist wage reductions, and the highest officials of union labor have announced that wage reductions will be resisted with all the power of their organizations. Should such reductions be forced by manufacturers, disastrous and widespread strikes might be expected. It is probable, however, that manufacturers generally will be wise enough not to attempt to drive wages downward before there is a fall in the cost of living. This country could ill afford a labor war following an enormously expensive foreign war. Manufacturers should remember that wages are not really the amounts shown on the payrolls, but the purchasing power of these amounts, and should recognize that during an era of high prices labor is entitled to remuneration on a corresponding scale.

It would be better for the country that wage and price readjustments come about gradually. Prices of some commodities, wool and cotton and their textiles, copper and other metals, have already declined from war-time levels. Undoubtedly there will be price reductions in other lines during 1919, the extent of which cannot be estimated but which will be appreciable. As famine conditions prevail in a large part of Europe, food products will doubtless decline in price more slowly than other commodities, but, with average crops in the great food producing countries, the shortage will be relieved throughout the world. Of course average crops, that is, equal to the pre-war average, cannot be expected in Russia, where there is political upheaval, or in the devastated sections of Europe. Uncertainty as to the world's wheat production in 1919 makes uncertain the market price during coming months, although our government has guaranteed $2.26 a bushel to farmers.

In all countries there was during the war a shortage of labor as well as of food. After the period of transition from a war to a peace basis there probably will be employment for everyone. The demands on industry will be so great that an adjustment to

peace conditions will probably be in full effect by the time demobilization is completed, possibly before, and then there should be employment for all returned soldiers. In the United States the supply of labor will be more or less affected by immigration, but the extent of immigration after the war is a matter of pure guesswork. Unquestionably millions of people in Europe wish to come to America. If only 1 per cent of the populations of nations lately at war should seek asylum here, the number would be between four and five millions. But the recently enacted literacy test excludes many from the United States, many especially from Central and Southern Europe where illiteracy rises to 50, 60 or 70 per cent. Some European countries will probably prohibit emigration, either by direct laws or by making it difficult to secure passports. Then, owing partly to a shortage of ships, emigrant rates will be high and this condition will likely continue for a considerable time. Wages will undoubtedly be higher in all European countries after the war than before it began, and this will have a tendency to hold many to their native soil. Moreover, many aliens now in the United States have always intended to return to Europe. During the four years of war they earned high wages and saved more money than they ever before possessed. Many now will return to their old homes, with the intention of buying farms, for they believe that in many places, especially in Russia, Austria-Hungary and the Balkan States, land can be purchased cheaply as compared with values before the war. The fact that prohibition will permanently prevail in the United States from July 1, 1919, will likely deter some foreigners from coming to our shores, and hasten the return of some aliens to Europe.

During the war the Department of Labor has established nation-wide employment agencies, by which the labor forces can be distributed to the industries and sections where they are most needed. If, perchance, there should be a surplus of labor, it may be employed in building roads, diking rivers or on other public works, or it may be employed in the reclamation of public lands, for which some states have already provided and for which Secretary Lane asks a congressional appropriation. The labor needs of agriculture are urgent, and it would be better for the country if hundreds of thousands, or even millions, of men could be induced to go to work on farms.

OUR TARIFF POLICY

Another uncertain factor affecting industrial reconstruction and export trade is the tariff, and this applies to competing countries as well as to the United States. No one knows what changes will be made in the conventional tariffs that Germany and Austria-Hungary have had, or in the maximum and minimum tariff of France or in the free trade system of Great Britain. The Peace Conference may decide some questions as to the tariff relations between the Allies and the Teutonic Powers, and possibly may impose on the latter economic barriers for a number of years. With a Democratic President and a Republican Congress there likely will be no tariff changes in the United States during the next two years, except perhaps higher duties on particular articles. Meanwhile dumping will be prevented by the anti-dumping provision of the Underwood-Simmons Act.

During the last twenty years legislation has been toward lower tariff rates, as shown by Table I. The average duty computed on the value of imports for consumption was approximately only 6 per cent less on both dutiable imports and total imports during the (nearly) nine months' period from October 4, 1913, when the Underwood-Simmons Act was passed, to the end of the fiscal year, June 30, 1914, a month before the war began in Europe, as compared with imports during the fiscal year ended June 30, 1913, the last full fiscal year under the Payne-Aldrich Act.

It may be taken for granted that the Democratic party, as well as the Republican party, will favor duties sufficiently high to maintain in a prosperous condition the efficient plants in important industries. The maintenance of "key" or "pivotal" industries is favored by both parties as a national policy, as a measure of national independence and security. This is illustrated by the higher duties on analine dyes, which a Democratic Congress, in 1916, voted to develop and protect as an infant industry. It is illustrated also by a bill to make the new rates more effective, a bill drafted by the Tariff Commission, which commission, established by Congress in 1916, was organized in 1917.

Conditions the world over are now abnormal but the advantage is with America. Taxes in the United States will be high to pay our war debt, but computed on either an ad-valorem basis or a

TABLE I

AVERAGE RATE OF DUTY, COMPUTED ON AN AD-VALOREM BASIS, COLLECTED ON IMPORTS FOR CONSUMPTION DURING SPECIFIED PERIODS UNDER TARIFF ACTS OF 1897, 1909 AND 1913*

Fiscal years ended June 30, 1899, 1909, 1911 and 1913	Average rates on	
	Dutiable imports	Total imports
1899, first full fiscal year under Dingley Act	52.07	29.48
1909, last full fiscal year under Dingley Act	43.15	22.99
1911, first full fiscal year under Payne-Aldrich Act	41.22	20.29
1913, last full fiscal year under Payne-Aldrich Act	40.05	17.69
Oct. 4, 1913, to June 30, 1914, Underwood-Simmons Act	33.99	12.30

*"Foreign Commerce and the Tariff, 1899–1915," p. 34. Published as Senate Document No. 366, 1st Session, 64th Congress. Contains many detailed tables relating to the tariff compiled by the writer from reports of the Bureau of the Census and the Bureau of Foreign and Domestic Commerce.

per capita basis, they will be higher in other countries than here. The cost of living here will continue high for an indefinite time but necessities will be equally as high or higher elsewhere. Wages will be high here even after reductions that may be expected. They will not be so high elsewhere, but the proportion of increase in wages above pre-war standards will doubtless be as great in other countries as in our own. Raw materials of most kinds will cost no more, if as much, in the United States than in European countries.

EXPORT TRADE AND PRODUCTION COSTS

Our export trade would, of course, be handicapped by excessively high wages as compared with those in other countries. But before the war our foreign commerce was built up largely in lines of manufacturing in which American manufacturers have shown their superiority over foreign manufacturers, in matters of factory organization, greatest possible use of machinery, subdivision of labor, standardization of products and large output. Such efficiency has to a great extent, frequently altogether, overcome the handicap of higher wages paid by American manufacturers, as compared with wages paid in Europe. It has,

moreover, been demonstrated that well-paid labor is more economical than that which is poorly paid.

Where the product is principally or very largely hand-made, America cannot compete with Europe, because of the higher labor cost here, but there are now few important industries of that kind and every year inventions are introduced that with less labor increase the output. The proportion of labor cost as compared with the total cost of manufactured articles is often much overrated. The Census of Manufactures in 1909 showed that the total value of manufactures was $20,493,406,235, of which only $3,427,037,884 was paid to wage-earners; that is, the labor cost was only 16.72 per cent. Of 260 industries (all that are specified by the census, with a group of "all other industries") there were 195 in which the labor cost was less than 25 per cent.* Other elements of cost shown by the census were raw materials, contract work, salaries, rent and taxes. It may be assumed that in all or most of the industries the cost to American manufacturers for raw materials did not exceed the cost to foreign manufacturers.

One thing that American manufacturers need is a cost-finding system. Their balance sheets show whether last year's business has been profitable, but nearly all of the smaller manufacturers, and most of those with medium production, have no method by which they can accurately determine what are the elements of cost or even total costs of particular units or of different grades of a product. This statement may be questioned, but it will be substantiated by any general investigation of factory conditions.

In forecasting the extent of exports of the United States after the war, a glance may be given to statistics of exports before the war began in 1914. The statistics of imports and exports, compiled by the Bureau of Foreign and Domestic Commerce, show commodities in six general classes, as follows:

A. Crude Materials for Use in Manufacturing.
B. Foodstuffs in Crude Condition and Food Animals.
C. Foodstuffs Partly or Wholly Manufactured.
D. Manufactures for Further Use in Manufacturing.
E. Manufactures Ready for Consumption.
F. Miscellaneous.

* "Foreign Commerce and the Tariff, 1899–1915," pp. 67–69.

TABLE II

GENERAL IMPORTS AND DOMESTIC EXPORTS OF MANUFACTURES READY FOR CONSUMPTION, FISCAL YEAR ENDED JUNE 30, 1914. COMPARABLE COMMODITIES OF WHICH THERE WAS AN EXCESS OF IMPORTS*

Classification	Imports	Excess of imports
Fibers, vegetable, and textile grasses, manufactures of	$81,141,028	$68,565,558
Art works	35,010,449	33,595,147
Cotton laces and embroideries	33,865,822	33,633,365
Wool, manufactures of:		
Wearing apparel	$2,268,125	$119,890
Other	31,047,370	29,379,167
Total	$33,315,495	$29,499,057
Silk, manufactures of, exclusive of yarn	$29,702,323	$27,394,718
Paper, and manufactures of:		
Paper hangings	$933,777	$480,265
Printing paper for books and newspapers	11,075,659	7,285,806
Wrapping paper	1,028,500	495,843
Books, music, maps, engravings, etchings, photographs, and other printed matter not elsewhere specified	6,644,264	2,995,596
Other	7,881,640	1,633,888
Total	$27,563,840	$6,900,206
Earthen, stone, and china ware	$10,629,178	$6,275,937
Toys	9,084,019	8,274,899
Fertilizers, not elsewhere specified	6,199,554	4,838,651
Cotton knit goods, including hosiery	5,671,863	3,125,041
Tobacco, cigars, and cheroots	5,193,313	5,159,214
Cutlery	2,860,519	1,712,524
Cork, manufactures of	2,647,838	2,185,639
Gold and silver, manufactures of, including jewelry	2,609,130	1,176,903
Perfumeries, cosmetics, and all toilet preparations	2,309,027	688,155
Wood shingles	2,190,170	2,077,707
Brushes, feather dusters, and hair pencils	2,180,853	1,730,944
Buttons and parts of	2,082,029	1,427,657
Oilcloth and linoleum for floors	1,829,596	1,769,193
Aluminum, manufactures of	1,441,253	339,333
Glass, cylinder, crown and common window glass, unpolished	1,356,218	1,044,879
Oil, animal	1,033,851	211,618
Matches, friction and lucifer	882,795	805,059
Electric lamps	653,765	185,496
Pencils and pencil lead (including slate)	642,998	109,054
Sponges	481,973	308,107
Umbrellas, parasols and sunshades, covered with silk or other material, except paper or lace, and sticks for	119,073	89,170
Platinum, vases, retorts, and vessels for chemical use	82,000	10,828
Total	$302,779,972	$243,134,059

* "Foreign Commerce and the Tariff, 1899–1915," pp. 54–55.

TABLE III

GENERAL IMPORTS AND DOMESTIC EXPORTS OF MANUFACTURES READY FOR CONSUMPTION, FISCAL YEAR ENDED JUNE 30, 1914. COMPARABLE COMMODITIES OF WHICH THERE WAS AN EXCESS OF EXPORTS*

Classification	Exports	Excess of exports
Machinery, machines, and parts of	$115,658,814	$109,182,746
Automobiles, and parts of	33,198,806	31,766,230
Agricultural implements, and parts of	31,965,789	31,703,728
Cotton cloths	28,844,627	16,998,826
Oil, mineral, naphtha, and all lighter products of distillation	27,352,685	25,951,945
Leather, manufacture of:		
Boots and shoes	$17,867,234	$17,460,003
Other	3,030,158	17,839,460
Total	$20,897,392	$9,620,543
Structural iron and steel	$12,533,063	$12,154,643
India rubber, manufactures of	11,008,493	9,448,681
Rails for railways, steel	10,259,109	9,909,570
Wire, and manufactures of	9,934,614	8,670,552
Photographic goods:		
Cameras	$664,006	$416,716
Motion-picture films, not exposed	4,264,722	3,375,162
Motion-picture films, exposed	2,282,924	870,751
Other	2,220,148	2,142,903
Total	$9,431,800	$6,805,532
Tobacco, manufactures of:		
Cigarettes	$4,775,308	$4,680,700
Other	2,714,503	2,548,695
Total	$7,489,811	$2,132,005
Explosives	$6,272,197	$5,414,860
Soap	4,939,002	4,118,389
Musical instruments, and parts of	3,358,631	1,281,897
Lead, manufactures of	2,610,207	2,549,358
Phonographs, etc., and materials for	2,512,320	2,360,882
Oil, vegetable, fixed or expressed	2,408,307	2,063,199
Abrasives	2,114,632	2,066,803
Bicycles, tricycles, motorcycles, etc.	1,842,225	1,585,944
Starch	1,825,230	1,416,308
Copper, manufactures of	1,327,037	1,142,365
Straw and palm leaf, manufactures of	799,507	324,752
Asbestos, manufactures of	687,073	295,736
Blacking (including shoe paste and polish and other)	649,395	607,257
Hair, manufacture of	344,756	220,982
Candles	283,018	266,730
Aeroplanes, and parts of	226,149	193,888
Zinc, manufactures of	158,344	107,363
Plates, stereotype and electrotype	72,752	21,581
Ivory and manufactures of, and scrap	63,180	10,766
Total	$351,068,965	$300,394,061

* "Foreign Commerce and the Tariff, 1899–1915," pp. 56–57.

Large importations of materials for use or further use in manufacturing indicate a healthy condition of domestic industry. Tariff differences and discussions center around Class E—manufactures ready for consumption. In the fiscal year ended June 30, 1914, total general imports amounted to $1,893,925,657, while total domestic exports amounted to $2,329,684,025, an excess of exports over imports of $435,758,368. During the same year general imports of Class E amounted to $449,318,214 and domestic exports of that class to $724,908,000, an excess of exports of $275,587,786. Ten years earlier this excess amounted to only $95,877,128.

Table II is a list of commodities of which the imports exceeded in value the exports. Table III is a list of commodities of which the exports exceeded in value the imports. Some imports and exports, not strictly comparable in their classifications are omitted from both lists. The list of imports includes art works and goods of fine grades made largely by hand; the list of exports includes articles manufactured in factories having quantity production.

GROWTH OF OUR FOREIGN TRADE

There are reasons for believing that Americans generally do not realize the extent and remarkable increase of the foreign trade of the United States, especially exports, during the decade preceding the war. Table IV shows the growth in imports of the four greatest commercial countries from 1902 to 1912, the latter year being the last for which comparative statistics are available. It will be seen that in the increase of imports of manufactured goods, the percentage of the United States was considerably larger than the percentage of the United Kingdom, and considerably less than the percentage of either France or Germany. By Table V, showing the growth of exports from 1902 to 1912, it appears that in increase of exports of manufactured products the percentage of the United States was very much larger than the percentage of any other of the four countries.

The wonderful progress that the United States made in expansion of exports in years preceding the war has been many times accelerated since the war began in 1914. The United States now has an export trade far larger than that of any other nation

TABLE IV

AMOUNT AND PER CENT OF INCREASE OF TOTAL IMPORTS AND IMPORTS OF MANUFACTURED PRODUCTS OF THE UNITED STATES, UNITED KINGDOM, GERMANY, AND FRANCE DURING THE 10-YEAR PERIOD FROM 1902 TO 1912*

Country	1902	1912	Increase 1902 to 1912	
			Amount	Percent
United States:				
Total imports	$969,316,870	$1,818,073,055	$848,756,185	87.56
Manufactured products	415,169,956	724,335,583	309,165,627	74.47
United Kingdom:				
Total imports	2,597,599,803	3,668,029,653	1,070,429,850	41.21
Manufactured products	649,142,907	902,574,348	253,431,441	39.04
Germany:				
Total imports	1,340,178,000	2,544,458,000	1,204,280,000	89.86
Manufactured products	262,514,000	498,610,000	236,096,000	89.94
France:				
Total imports	848,042,000	1,588,544,400	740,502,400	87.32
Manufactured products	149,980,300	311,540,600	161,560,300	107.72

* "Foreign Commerce and the Tariff, 1899–1915," p. 74. The classification by the four countries is not exactly the same, some commodities classed as manufactured products by one country being grouped by another as raw materials. *Ibid.*, p. 73, where imports for each year 1900 to 1912 inclusive are shown by countries.

on earth, and without doubt much of its gain during the war period will be retained. During this period many American manufacturers who previously had no intention or desire to go into foreign trade, have built up a profitable business in the four quarters of the globe. They have lost their timidity about venturing out, have advertised in foreign countries, have sent salesmen to distant lands, have manufactured goods to suit the special needs of people living in different climes, have learned how to pack goods securely, have met varying credit requirements, and in short, have learned the methods of getting and filling orders and building up a profitable trade the world around.

While Table V shows that the exports of Germany were increasing faster than those of the United Kingdom or of France, yet

TABLE V

AMOUNT AND PER CENT OF INCREASE OF TOTAL EXPORTS AND EXPORTS OF MANUFACTURED PRODUCTS OF THE UNITED STATES, UNITED KINGDOM, GERMANY, AND FRANCE DURING THE 10-YEAR PERIOD FROM 1902 TO 1912*

Country	1902	1912	Increase 1902 to 1912	
			Amount	Percent
United States:				
Total domestic exports	$1,333,268,491	$2,362,696,056	$1,029,427,565	77.21
Manufactured products	464,415,450	1,117,665,614	653,250,164	140.66
United Kingdom:				
Total domestic exports	1,379,282,731	2,371,072,866	991,790,135	71.91
Manufactured products	1,103,853,780	1,873,740,295	769,886,515	69.75
Germany:				
Total domestic exports	1,113,364,000	2,131,766,000	1,018,402,000	91.47
Manufactured products	735,182,000	1,430,142,000	694,960,000	94.53
France:				
Total domestic exports	820,674,600	1,295,531,800	474,857,200	57.86
Manufactured products	458,297,800	756,154,700	297,856,900	64.99

* "Foreign Commerce and the Tariff, 1899–1915," p. 75, where exports for each year 1900 to 1912 are shown by countries.

with her loss of the war, Germany has lost her foreign trade organization. Under the restrictions imposed on her by the Peace Conference, especially those depriving her of adjacent territory and colonies (which deprives her of raw materials), especially also the heavy indemnities to be paid by her, it is not to be expected that during the first years, perhaps many years, of peace her industrial system can be restored or her foreign trade reëstablished on the basis of anything like its former extent or degree of prosperity.

Germany has one product that America needs—potash. Her manufactured products exported to America consisted largely of drugs, dyes, hosiery, toys, laboratory ware and optical glass,

but domestic manufacture of these commodities has greatly increased during the last four years, and for them the United States will not hereafter be dependent on any other country.

It seems probable that the United Kingdom will be the great commercial rival of the United States in the future, as (see Table V) it really has been in the past in volume of manufactured exports and total exports.

THE FUTURE

But encouraged, elated even, by recent successes in foreign fields, American manufacturers will make a vigorous effort to hold much of the new trade abroad that has been gained during the last four years, and even to extend business to regions where our commerce has heretofore not reached. Those sections of Russia that are overrun with Bolshevism, and any other sections that may be similarly affected, will of course be avoided until stable governments are established. In promoting foreign commerce American manufacturers will receive invaluable aid from the Bureau of Foreign and Domestic Commerce, whose commercial attachés are stationed in the leading countries, and whose trade commissioners visit all parts of the world to observe and report trade opportunities open to Americans. For prosecuting this work of fostering foreign trade, which has heretofore yielded rich results, Secretary Redfield asks for considerably larger appropriations.

The Bureau of Foreign and Domestic Commerce publishes a daily called *Commerce Reports*, to which anyone may subscribe. It contains reports and letters from representatives of the bureau in foreign countries and from American consuls throughout the world. It will give American manufacturers and exporters information of the greatest value as to industrial and trade conditions in all countries, valuable especially because of the rapid changes that will now occur. Under the provisions of the Federal Reserve Act, seventy-five branches of American banks have been established abroad, and doubtless many more will be established, which will give Americans in foreign trade the benefits of banking facilities and credit reporting agencies that they have not heretofore enjoyed.

Under the provisions of the Webb Act, which relieve export associations from provisions of the Sherman Act intended to

prevent monopolies, about sixty associations have been formed, and these with others which may be organized will probably cover manufacturers in all important lines of goods exported. They will give to Americans, so far as selling to foreigners is concerned, the advantages that Germans have enjoyed under their cartel system. The United States now has, or very soon will have, the ship tonnage needed for carrying its goods to the marts of the world, without dependence on bottoms sailing under foreign flags as has been our humiliating position since the Civil War.

It is gratifying to note that our exports during December, 1918, and January, 1919, were very much larger, in quantities as well as values, than they were during the corresponding months of 1913 and 1914. The rivals of the United States in international commerce will not for some time be in a financial condition to extend the long credits which they gave to overseas customers before the war began. Financial assistance to American exporters will be furnished by the War Finance Corporation, which was established by Congress, in 1918, with an authorized capital stock of $500,000,000, all to be subscribed by the government, and with the right to borrow up to six times the amount of the paid up stock issue. Early in April this corporation issued bonds to the amount of $200,000,000, which were subscribed for immediately. These bonds are payable in one year, with 5 per cent interest. The corporation will make loans to exporters up to $50,000,000 for a maximum of five years. Adequate collateral will be required to equal at least 125 per cent of the loan, and probably trade acceptances or other paper representing merchandise will be acceptable.

American enterprise has been intensified by the reënergized work done during the war. The commercial vision of Americans has been greatly broadened during the last five years. In 1914 the United States was exceeded in exports by only one nation, to which, in fact, it was almost equal. If the volume of export trade held in that year is retained with the addition of only a fraction of the subsequent increment, and if the rate of expansion is even as much as the rate before the war, our country will secure for itself undisputed leadership among the commercial nations of the world.

The International Trademark Question

By Lawrence Langner
New York City

THE war which has come to a close has created such high labor costs in Europe, that now more than ever before, industrial conditions there closely approximate those existing in the United States. As a result, it may safely be said that the world now enters into the era of quantity production. However much one may regret the fast-disappearing craftsmanship of the individual non-specialized worker, the greater satisfaction which came to the craftsman from the love of his handiwork, it seems plain that from now on the craftsman is passing out of existence, and the world-industry of the future must develop along American lines, that is, on the basis of the production of standardized articles upon a large scale, thus allowing the economic law of division of labor to come into play and to result in the cheapening of the product. This transition from an industrial world based on craftsmanship into the modern highly-standardized factory system has, of course, though accelerated in Europe by the war, been of long duration.

Early industrial craftsmen, as well as the artists, were in the habit of marking their handicraft with their names or with some insignia which would identify their product and serve as a means to denote the origin of the articles made by them. Practically all the ceramics of ancient Rome and the silverware of the Middle Ages were inscribed with the name of the individual craftsman whose handiwork it represented. This practice of making goods with a distinctive trademark has come down to us through the ages, and represents the realization of the desire on the part of the honest craftsman in all stages of the world's history, to be known by his good handiwork, creating what is termed in modern parlance "goodwill" on the part of his public. With the growth of the factory system, the development of international trade, and in particular the development of international advertising, the question of marking goods to denote their origin has become one of far greater importance than ever before.

In the early period of development of modern industry, the number of goods sold under a distinctive trademark was relatively small, and the market itself restricted. Today a single trademark very often serves to identify millions of dollars' worth of goods sold in every part of the earth to all kinds and conditions of people. Thus the modern international trademark must not only be a mark which is suited to the needs of the markets of the country in which the goods originate, but it must, in order to be a valuable means of identification, be distinctive in all kinds of markets. There has thus grown up a requirement for the use, in modern industries, of a special kind of trademark, which may be called an international trademark. Experience has shown that very few of our leading American manufacturers have appreciated the necessity for giving attention to this aspect of international trademarks, since they adopt the same method which was used by the early Roman and the mediaeval craftsman. They use merely their names to identify their product, failing to remember that there are persons with the same names in most of the Anglo-Saxon parts of the world, and that these names themselves, printed in Roman characters, are unintelligible to almost half the world.

SELECTING AN INTERNATIONAL TRADEMARK

In the selection of an international trademark, there must be brought to bear a knowledge of the psychology not merely of a nation but of all nations. The best international trademark is that which has the most universal appeal in the widest sense of the word. A picture is usually an excellent international mark as it has a meaning not only for the educated public but also for the uneducated. If the mark is a picture of an object which is known equally to the educated and to the illiterate, it will be especially suitable. Perhaps the best example of such a mark is the picture of an animal or a bird, such as the picture of a lion, a tiger or an eagle. Such marks are of universal interest, and cannot fail to be distinctive, no matter what the country may be in which the mark is used. On the other hand, invented words, words in the English language, proper names, signatures, etc., all of which are favorite marks with American manufacturers, cannot be recommended as international trademarks. Where a

manufacturer has already adopted a trademark which is unsuited for foreign trade and has spent a great deal of money in advertising it in this country and abroad, it is of course practically an impossible matter, and also an unbusinesslike matter, to change the trademark. In such a case; the representation of some animal or bird, which will be distinctive in the foreign market, should be combined with the other mark, and the dual mark will be sufficiently distinctive for international purposes.

A very good example of such use, is the Borden "Eagle" trademark, which is used on all products made by Messrs. Borden & Company throughout the world, and is probably a more valuable trademark in the Far East than the name "Borden," which means nothing to the illiterate.

NATIONAL TRADEMARKS

Another aspect of the trademark situation which has not been dealt with by publicists is the question of using trademarks in order to give the goods the appearance of a national origin different from the real origin. Thus, it was a common practice for a German concern, prior to the war, to use trademarks which would indicate that the goods made by it were of British or American origin, because of the greater national reputation of those countries. Great Britain attempted to stop this practice, so far as the British markets were concerned, by means of its Merchandise Marks Act, under which the customs authorities were empowered to stop any shipment into Great Britain of German goods which did not bear upon them the words "Made in Germany." Contrary to what has sometimes been thought to be the case, this did not have the effect of making the mark "Made in Germany" a mark of quality. On the contrary, the words "Made in Germany" became a derogatory mark, since the majority of German-made goods did not have the same durability as English-made goods of the same grade, and as a result, even the better-made German articles came under this ban of popular disfavor in Great Britain; so that the expression "Made in Germany" was, even before the war, a term of contempt among the more reliable traders.

There has been considerable agitation in this country for the compulsory use of a national United States trademark, which is

to be registered in the trademark offices all over the world, and is to be used by our manufacturers to indicate that their goods are of American origin. This proposal has found disfavor on the ground that the poorer grade of American goods marked in this way may create a bad impression for American goods as a whole, so that more would be lost than would be gained as a result of a national trademark. Another danger arising from the use of the mark "Made in U. S. A." as a general proposition, is the possibility of manufacturers in other countries similarly marking their goods "Made in U. S. A." and shipping them to the various foreign markets, such as the South-American countries, where they would be passed off as American goods. There would be very little possibility of preventing such false marking except by special treaties. It is not the usual custom for our manufacturers to mark their goods "Made in U. S. A.," and it is the writer's opinion that they should not rely upon such marking, but should always use a good international trademark, protected by registration in the various foreign countries.

IMPROPER REGISTRATION OF TRADEMARKS

There has been considerable activity in the improper registration of trademarks by importing agencies in the various foreign countries, these agencies registering the well-known trademarks of American concerns, and using the ownership of the mark thus acquired, as a means of holding the agency of these concerns. This abuse has been generally due to negligence on the part of the American manufacturer. It cannot be said adequate warning of the situation has not been given in the past few years, as our Department of Commerce and agencies throughout the country have made this situation abundantly clear to the American manufacturer and exporter.

THE TRADEMARK AS AN ECONOMIC WEAPON

Prior to the war, a number of American trademarks were registered through America by concerns who were often suspected of being the agents of German concerns. Only recently, the writer came across the registration of the well-known American trademark "Bakelite" in the Argentine by the German exporting house of Hecht, Pfeiffer & Co. This unfair registration of trade-

marks can very readily become an economic weapon if it is carried out systematically and advantage is taken of the lack of interest which has so often been shown by American exporters.

A number of attempts have been made to bring about the international protection of trademarks, but these attempts cannot be regarded as entirely successful. This is due to the fact that the registration of a trademark is a domestic affair, and the protection afforded can extend only within the territory of the country, and subject to the conditions which exist in that territory. For instance, the country granting trademark protection cannot possibly concern itself with the question of whether that trademark protection will interfere with trademark protection granted by another country to another manufacturing concern doing business in that other country. In view of the fact that only a relatively few trademarks are in use internationally, while the majority of trademarks are used in domestic commerce and are not employed in international trade, it is practically impossible for any country to have a trademark system which is adequate both for domestic trademarks and for international trademarks. Thus, in the United States, our trademark laws are perfectly adequate for a trademark used in this country, but cannot give an English concern, which has built up a great business under a trademark in Europe, an opportunity of protecting the trademark here when the goods are not sold in this country, and when an American manufacturer has been using the mark here in all good faith.

INTERNATIONAL REGISTRATION

As a result of this condition, conflicts of interest are inevitable. The attempts made to remove these conditions by international registration at Berne, Switzerland, and more recently by the establishment of the Pan-American Union Trademarks Office, only seem to emphasize the difficulties which are encountered. Under these unions the registration of an international mark in the international office covers not one country, but a number of countries. As a result, any person who wrongfully registers a trademark in the international office is thereby enabled to accomplish more simply and more effectively a wrong in a number of countries and more trouble results from such international

registration systems than would exist without them. Thus, only recently, our attention has been drawn to the registration of a number of American trademarks by an Austrian in the International Trademarks Office of Berne, as the result of which he has secured trademark registration in a considerable number of countries at a very small cost to himself. In other words, international registration in a single office puts a premium upon piracy.

The writer is of opinion that the international trademark problem can be met only by an honest attempt to comply with the domestic requirements of the various foreign countries, and that where a conflict of interests arise, the later user of the mark must change his mark for that particular country rather than attempt to rely upon some form of international registration to protect him. Unification of the trademark laws of the world would not ameliorate the conditions. In the United States we already have a unified Federal Trademark law, which applies to all the states of the Union, and notwithstanding this fact, it often happens that a trademark which has been used in the eastern part of the United States comes into conflict with a trademark which has been used in the western part of the United States, though as much as twenty years may elapse before the trade expands to such a point that there is a conflict between the two traders.

The Supreme Court of the United States has held that under such circumstances, each party owns the trademark in the states in which he used it. This is what goes on, on a larger scale, in the international trademarks field. It would not be fair to permit any concern, merely by registering a trademark in an international trademark office, to cover the world completely by this single registration, thereby preventing others from using it in a field in which they are not using it themselves, and monopolizing some device which is capable of use without in any way hurting their business rights.

The trend in industry towards industrial combinations utilizing a single trademark may, in the end, result in a more uniform system of trademarks throughout the world, by reducing the number of marks used internationally. Combinations for export under the Webb-Pomerene Law result in the distribution and sale of goods made by a great number of American manufacturers

under a single trademark in the various foreign countries. Such trademarks will become extremely well known internationally, and may well form a class of international marks which could be registered in an international office for all classes of goods. Meanwhile, the American exporter who is developing a business in foreign markets must not neglect to register his trademarks in the countries in which he is doing business.

NO INTERNATIONAL COURT FOR UNFAIR INTERNATIONAL TRADE

The amount of unfair competition which goes on between individuals in a nation can readily be ascertained by reference to our court records. Nothing is so common, in an era of competition, as for one trader to attempt to take advantage of another, and nothing is more attractive than to attempt to steal the goodwill built up by a successful manufacturer. Human nature does not change beyond the boundaries of a nation. In international competition, the same conditions prevail exactly, with the disadvantage against the honest trader in that there are no international courts before which he can appear for justice in international trade. Under the circumstances, it behooves our government, if it is to secure fair conditions for American traders abroad, to busy itself with treaty arrangements with countries where it is often impossible for an American trader to register his trademark as for instance, Cuba, where an American trademark cannot be registered unless it has already been registered in the United States Patent Office. The International Patent Law Association, an organization made up of the leading international patent practitioners in this country, has recently been formed with a view to remedying international conditions in trademarks, as well as in patents, and it is one of the objects of this Association to conduct an active propaganda, directed to the desirability of arrangements which will remove those disabilities which prevent the registration of trademarks internationally; for instance, the fact that registration in one country is often dependent upon registration in another, and the conditions which prevent the real owner of the mark from recovering it from a person who has pirated it.

We are told that wars are brought about as a result of the desire of one nation to gain an economic advantage over another;

the ill-feeling which so often accompanies competition, is much aggravated by unfair trade tactics. The Japanese have been particularly active in simulating American trademarks in the Far East trade, and such activities are not conducive to good feeling between the nations. The piracy of international trademarks might well result in a breach in commercial confidence between a nation habitually attempting to copy American trademarks, and this country, so that those who are interested in international coöperation, and good-feeling between the nations, would do well not to overlook the importance of the subject of International Trademarks.

What America's New Merchant Marine Means to the World

By Edward N. Hurley

Chairman, United States Shipping Board

THE world was never before in such desperate need of raw materials supplied through overseas tonnage as it is today. The need of the hour is Ships.

After four years of unexampled privation brought on and fostered by the ruthless destruction of merchant ships on the one side, and a blockade of the seas that gave way only for vessels freighted with munitions of war, food and other supplies to uphold the strength of the Allied nations on the other side, the period of readjustment and rehabilitation is at hand.

This period of intensive demand is not a passing flurry to call for momentary attention and then pass on among the forgotten troubles of a day. The workers of the world must buckle down to long years of hard labor to replenish supplies, to repair damage done and set the old globe up in business again as a going concern. And this will require Ships—More Ships.

The great demand is for raw materials, chiefly foodstuffs. The cry for food is insistent. In this crisis the United States takes high place. The creation of her new merchant marine, born of the breath of war, now finds an exalted usage in the succor of starving and desolate peoples, most of them innocent victims of the ravages of war.

Because we had no delivery system of our own upon the seas our seaports began to choke with our own products before the war was a month old. The sudden close of the war brought the same congestion, withdrawal and reallocation to old trade routes of ships that had been ferrying our goods across the Atlantic. But the force of this blow, which might have proved a staggering one under old conditions, has been almost entirely taken up by the shock absorber of our new-built merchant marine. The situation has been saved by Ships.

This is what happened when war was declared across the sea:

An accumulation of freight brought on congestion at our seaports. There were no ships to carry our exports. The demands and exigencies of war called them from our shores. We were the most powerful of all the neutral nations. But we had practically no overseas shipping of our own and our commerce had to depend almost entirely on ships of alien flags—a dependence that failed us at the first note of war.

It was but natural that those in control of ships under foreign register should place their own war necessities above the demands of our trade. We could only stand helpless and watch the products of our farms and our stockyards pile up on piers and in warehouses while prices fell at an appalling rate. The cause of all this was the lack of SHIPS.

With the signing of the armistice and the cessation of hostilities our seaboard terminals once more began to choke with the products of the farm and stockyard, mine, mill and factory. It was the same story over again. The Allies, no longer dependent upon American armies and American war materials for their national safety, suddenly withdrew many of their best ships from the American trade. American business, therefore, was immediately thrown upon its own resources. It looked like a hard winter. But we missed the jolt and are coming safely through the period of readjustment. The pull that brought us out of that hole was furnished by OUR OWN SHIPS.

Anyone could safely predict that the war would come to a sudden end. But no one could say when that end would be. When it did come it found the grain and meat storage terminals of the seaboards and Great Lakes filled to overflowing with an unprecedented accumulation of American foodstuffs. According to the records of the Department of Agriculture there were in storage on November 1, 350,000,000 bushels of grain, 250,000,000 pounds of dairy products, and nearly 1,000,000,000 pounds of meats. Had the American merchant marine not been on hand to move these products the consequent crash in prices would have been a terrible blow not only to the American producer but to the raw materials market of the world.

The ships of our new merchant marine have been moving our surplus wheat crop, estimated at 450,000,000 bushels, at the rate of 36,000,000 bushels a month. This is an export movement

50 per cent greater than the average for the eleven months ending November, 1918, and for the entire year of 1917.

On the first of February the requirements of the newly organized European food relief service, as announced to the Shipping Board through the Food Administration, called for the immediate export, chiefly to European neutrals, of half a million tons of American flour, pork products and milk, and of a quarter million tons of various foodstuffs for Belgium. The December and January programs for Belgium relief totaled another half million tons of foodstuffs. It was expected that foreign shipping would be available to carry a considerable share of this tremendous quantity of American foodstuffs, but so many of the foreign ships returned to their ante-bellum trade routes immediately after the armistice was signed, that the bulk of the task fell to our new merchant marine.

Of a total of 1,200,000 tons of foodstuffs for relief purposes exported up to March 1, more than 80 per cent was carried in American vessels, and with few exceptions, in cargo carriers built in American shipyards during the past year. All told the new merchant marine provided for the export of more than 1,500,000 tons of the surplus farm products of the country in the four months following the signing of the armistice with the requirements of the army accounting for between 2,500,000 and 3,500,000 deadweight tons of our merchant fleet.

These record-breaking accomplishments have been due to the energies of American shipbuilders who in little more than a year and a half built more than double the number of launching ways than are now owned by all other nations combined, and are building more shipping than is being constructed by all the rest of the world put together.

There is no reason to believe that we are building too many ships. There are many good reasons to prove that we are not. The need for ships was never so great as it is at present and this demand will continue for many years—will last until the world catches up with the tonnage it requires for the purpose of its normal commerce.

The shortage in world tonnage due to the war can be placed by conservative estimate at 16,245,000 gross tons. This figure represents eight times the total of seagoing ships built in the

United States in the last year. The record of superproduction of ship tonnage is unprecedented in shipping annals. And the normal tonnage of the world which the upbuilding of our merchant marine will help to restore was adapted to the simple commercial needs of civilization and not to the additional task of restoration and rehabilitation of the destructive forces of war—the added problem of today.

The whole world is short of raw materials. Factories the world over are being restored to the production of articles adapted, not to the needs of war, but of peace. Discharged soldiers will be employed and women brought into industry will remain. The output of manufactured commodities will be great. The world will experience the largest movement of raw materials that it has ever known and a consequent movement of manufactured goods. The need of tonnage for overseas shipping is evident.

Our merchant marine is stronger today than ever before. It is growing faster than it ever grew before. The faster we build ships the greater will be our independence. We lead all other nations in agriculture. We are the world's greatest producer of raw materials. There is one way that we can best serve ourselves and humanity through the distribution of our plenty. It can be expressed in one word: SHIPS.

American Tariff Policies From an International Point of View

By William Smith Culbertson
Member, United States Tariff Commission

THE League of Nations should have no jurisdiction over the highness or lowness of the tariff which this or any other fully sovereign nation wishes to enact. The amount of the tariff, it is true, has been and may continue to be a subject for negotiations between governments. Many commercial treaties have dealt with tariff rates and prohibitive duties have been the subject of protests and even trade wars. Nevertheless, the minimum rates which each nation collects at its border should be determined by its need for revenue, or food and raw materials, or by the stage of its industrial development. In the last analysis the determination of these rates is a domestic question. It is outside the jurisdiction of the League of Nations and should be reserved to each individual nation.

Discriminations

On the other hand, tariff discriminations, reciprocity arrangements and preferences should be specifically placed under the jurisdiction of the league. A fundamental principle of association among nations having the common interest of fostering good will in international affairs should be equality of treatment. Tariff treaties or systems which favor one nation against another inevitably lead to irritation and suspicion. Colonial monopolies maintained by preferences granted to the mother country encourage in the excluded nations the ambition to break down the barriers or it impels them to seek by diplomacy and armaments to obtain for themselves exclusive colonial spheres. The use by a nation of its economic power to obtain special tariff concessions or a system of preferential tariffs between colonies and the mother country is inconsistent with harmonious world relationships. Excluded nations are less injured and favored nations are less benefited than is commonly supposed; nevertheless, the very idea of discrimination has awakened fears and suggested retaliation.

EQUALITY OF TREATMENT

Equality of treatment was encouraged among nations before the war by the limited application of two principles—unconditional most-favored-nation treatment among nations and the open door in dependent colonies, protectorates and spheres of influence. The former was the corner-stone of the system of commercial treaties among European nations and the guarantee that no nation, entitled to the position of "a most-favored-nation," would be placed at a disadvantage against another. The latter principle —the open door—was adopted by several nations in their colonies and was established for large areas of the world by treaty or by international agreement. In many instances, however, the force of these principles was broken by exceptions and qualifications which left untouched the most flagrant cases of discrimination and inequality of treatment—such cases as the preferential tariffs of the self-governing British dominions and the French colonial empire.

The traditional policy of the United States, which led us to avoid entangling alliances with European states, has had its effect on our commercial policy. From the beginning of our national existence we have insisted upon a form and interpretation of the most-favored-nation clause in commercial treaties different from those accepted by European nations in 1914. We have sought special favors from foreign countries by tariff bargaining and we have established preferences in our favor in the Philippines. We have pursued these policies with little or no reference to their bearing on world affairs and in almost all cases without any intent of injuring excluded nations or any appreciation of the possible complications which might arise. Now, however, we are entering actively into world politics. More, we are championing the ideal of equality of treatment. It is very essential, therefore, for us to appreciate what this principle implies in our own practices and policies.

MOST-FAVORED-NATION CLAUSE

As has been stated, our position on the most-favored-nation clause has differed from that of European governments. We have contended that concessions should be made only to those who would reciprocate; that when a concession was made "freely" without a return to one nation, it would be extended to all others

entitled to most-favored-nation treatment, but when the concession was made upon a condition, it would be extended to other nations only when they granted equivalent concessions. Our object was equality of treatment, sought by offering equality of opportunity to bargain for the advantages which we had to offer.

The Tariff Commission Report on Reciprocity and Commercial Treaties says,

> The willingness to treat with all nations equally and to offer the same concessions to all in return for compensatory concessions by each was essentially a step forward. It was no part, however, of the American policy to give to some states "freely" such concessions as were given to others in consideration of reciprocal concessions. The earliest American statesmen adopted the "special bargain" principle, and the American government has acted ever since in conformity with the conception that commercial concessions are to be given for specific compensation, and that most-favored-nation treatment implies and requires nothing more than the granting of opportunity to purchase, on the basis of reciprocal give and take, treatment identical with, or similar to, that accorded other States.

Historically there is much to be said for the American position. It had at first a liberalizing influence on commercial relations and was a natural accompaniment of our independent position in international affairs. It became, however, the support of special bargaining and reciprocity treaties with their undesirable results. After the middle of the nineteenth century European states began experimenting with tariff systems and were led to adopt as a basis of their bargaining the unconditional form and interpretation of the most-favored-nation clause in their treaties. They began with the assumption that the most that any nation should or could in the long run expect in commercial relations is equality of treatment. Constant bargaining was recognized as undesirable. The advantage of the unconditional clause was that it automatically and immediately generalized concessions made by one state to another, thus maintaining equality of treatment and making new bargains unnecessary every time two nations adjusted their tariff relations. It guaranteed that no country would be placed on a less favorable basis than another. It is an effective means of generalizing concessions and automatically prevents discriminations.

During the war a disposition began to appear among European nations to abandon their pre-war position on this clause and to

adopt the American. Many public men despaired of making the clause effective because of the ways in which it had been nullified by discriminations concealed in tariff classifications, by customs regulations, and in other ways. The war itself which produced such programs as "Mittel Europa" and the resolutions of the Paris Economic Conference turned men's minds toward devices for discriminations and trade wars. The leading European nations have denounced their commercial treaties and are now considering their future policies.

However much the unconditional form and interpretation of the most-favored-nation clause has been evaded in the past, it is more desirable than the conditional form and interpretation, and its adoption by the nations as one of the clauses in the final treaty of peace is essential as a step to make effective the principle of equality of treatment. We in America must face this fact and answer whether or not we are willing to abandon our traditional policy. The evasion by concealed discriminations of the principle of equality is no excuse for a policy of open discrimination but rather conclusive proof of the need of a league of nations to make effective in spirit as well as in letter the principle embodied in the unconditional most-favored-nation clause. As long as we or any other people insist upon the conditional form of the most-favored-nation clause, we retain a ground for friction between nations and the world is deprived of one of the most effective means known to modern international commerce for establishing equality of treatment and international fair dealing.

BRAZILIAN PREFERENCES

The test of a nation's devotion to the principle of equality of treatment comes when particular cases are taken up for consideration. Little progress will be made if each nation seeks to preserve every vestige of its traditional rights and declines to give up something in the interests of international harmony and good will. Experience demonstrated to the nations of Europe that preferential arrangements among themselves were undesirable. May it not be desirable now to extend the principle of equality? Can the self-governing dominions of the British Empire seek admission as equal units into the League of Nations and at the same time continue to maintain their preferential tariffs? Can

we in America advocate equal treatment and continue to accept preferential treatment in the Brazilian market?

Under the reciprocity sections of the tariff acts of 1890 and 1897 the United States experimented with special reciprocity bargaining and treaties. A number of agreements were entered into, which obtained for the United States special and in some cases exclusive concessions. The last of these agreements was terminated by the tariff act of 1909 and a fundamentally different principle of tariff bargaining was adopted.[1] Our arrangement with Brazil—not a formal treaty at all— is the only surviving remnant of this reciprocity period. Under section 3 of the tariff act of 1897 the President was authorized to impose a penalty duty of three cents a pound on coffee from countries which treated American products unequally and unreasonably. Brazil was particularly dependent on this country as a market for its coffee. No agreement was negotiated but in 1904 our government suggested to Brazil that unless preferences were granted certain American products, particularly wheat flour, in Brazilian markets, the penalty duty would be imposed. The British flour millers in Brazil and the Argentine wheat interests were opposed to preference and their influence developed opposition in the Brazilian Congress. In spite of the opposition, however, preferences were granted to certain American products, including wheat flour and, with the exception of 1905, have been renewed each year with some change in the articles affected. Some growth in the trade of the favored articles has resulted from preference and there was a general growth of American trade to Brazil as a result of the new interest stimulated in that market.

COLONIAL PREFERENCES

A second general principle contributing to make effective equality of treatment which should become an integral part of the final treaty of peace is the "open door" independent colonies, protectorates, and spheres of influence. The practice among nations with reference to the open door in their dependent colonies has been varied. Great Britain, Germany, and The Netherlands for different reasons maintain the open door in the import tariffs of their dependent colonies. Spain, Portugal, Italy and particularly

[1] Section 2.

France have established preferences in favor of their own goods in their colonial possessions and granted colonial goods preferences in their markets. The United States also excludes other nations from an equal participation in the trade of the Philippine Islands. No nation alone should be asked to abandon its preferences but with the growing recognition of the fact that dependent colonies are a trust which more advanced nations are called upon to administer should come the universal adoption of the open door.

OUR PHILIPPINE TARIFF POLICY

Our tariff policy in the Philippines was affected by the treaty of peace signed at Paris in 1898 in which we agreed to grant to Spain equality of treatment in Philippine ports for a term of ten years. In the course of the discussions at the conference, the Spanish commissioners raised the question whether it was the purpose of the United States to grant equality of treatment in the Philippines to all nations or merely to Spain. The American commissioners replied:

> The declaration that the policy of the United States in the Philippines will be that of the open door to the world's commerce necessarily implies that the offer to place Spanish vessels and merchandise on the same footing as American is not intended to be exclusive. But, the offer to give Spain that privilege for a term of years, is intended to secure it to her for a certain period by special treaty stipulation whatever might be at any time the general policy of the United States.

This statement was a mere prediction of our future policy and not a promise. It is not likely that this statement indicated an intention to maintain the open door in the Philippines. The discussion on this point did not attract wide interest. An open-door policy, however, was maintained for a time. For three years after the United States took possession of Manila, the old Spanish tariff slightly modified and shorn of the Spanish preferences was retained and applied impartially to the imports of all countries including America. In the ports of the United States, Philippine goods, on the other hand, were charged the full rates in the Dingley Tariff Act.

This state of equality, however, was not satisfactory to American business men. Trade showed little tendency to follow the flag and complaints arose. It was recognized that because of our treaty obligations American goods could not be given a preferen-

tial rate in the Philippines over Spanish goods until after the expiration of the ten-year period. But there was a demand for a revision of the Philippine tariff in order to give a preference to this country in the classification of goods. Such a revision was made in 1901 by the Philippine Commission and enacted by the Congress of the United States in 1902. Before enactment this bill was submitted to the American exporting interests for their criticism and suggestions. Various schemes for concealed preferences were advocated and subsequently adopted. One discriminatory provision, for example, had to do with the weighting of cotton goods. Foreign competitors weighted their goods while Americans did not. The goods were, therefore, assessed for duty by weight without allowance for the weighting of materials. A further preference was given to fabrics of widths peculiar to American looms.

The tariff was revised again in 1905. In bringing in the bill the committee said: "The general purpose of this bill, as of the former act, is to give the United States such benefits as there are arising from the classification of goods." Faulty information concerning the classification of cotton goods, was relied upon however, in drafting this bill and the intended preference did not result. The error was corrected the next year. Concerning the effectiveness of the new revision, the report of the Philippine Commission for 1907 says:

> The total values of such cottons imported increased $1,677,750, or from $6,642,329 for 1906 to $8,320,079 for the year just ended, or 25 per cent. The increase in the value of cotton goods imported from the United States was even more marked, rising from $278,796 for 1906 to $1,056,328 for the year just ended, an actual increase of $777,532 in value or nearly 400 per cent. This result is directly traceable to the amendment of the Act of 1905 enacted by Congress on February 26, 1906. This act differentiates narrow cotton fabrics from the so-called double width goods, and thus provides a comparatively low rate of duty upon goods produced in the narrow (American) looms.

No one in this country opposed these discriminatory practices. There was apparently no consciousness of unfairness in the adoption of them. They were openly advocated by the Republican Party, which was in the majority, and criticised by the Democrats on the ground that the discriminations were not sufficiently effective.

In 1909, when the ten-year guarantee to Spain of the open door expired, a tariff of about 20 per cent was placed on all goods enter-

ing Philippine ports from foreign countries and a preference was granted to American goods by admitting them free of duty. This act remains in force today. Whatever may have been the intention at the time of the Treaty of Paris the open-door policy as to imports into the Philippines was formally abandoned at the earliest date on which it was legally possible.

In the meantime the policy with respect to imports from the Philippines into the United States underwent a similar transition. The decision of the United States Supreme Court in the Insular Cases late in 1901 made impossible the imposition of tariff duties upon goods entering American ports from the Philippines, unless such duties were specifically provided for by an act of Congress. The issue of the desirability of such duties was thus raised. Some felt that trade from the Islands to the United States should be free as a matter of justice to the Filipinos. It was argued that having taken the Spanish market from them we should give them preferential access to our own. Others advocated preference in order to take the trade of the Philippines from foreigners. On the other hand, sugar, rice, and tobacco interests in the United States feared competition from the Philippines and insisted that even though a debt might be owed to the Filipinos, it should not be paid at the expense of their particular industries. A compromise was arrived at by which Philippine goods, with the exception of certain specific articles, were admitted free to American markets and on those specified articles, among which were sugar and tobacco, a reduction of 25 per cent from the Dingley rates was granted. All moneys collected from imports from the Philippines were turned back to the Philippine treasury.

In 1909 free entry was granted to all Philippine goods except rice with the provision that in the case of sugar and tobacco the privilege of free importation should be limited to a specified amount annually. The limitations were removed in 1913 and since then the products of the Philippine Islands which do not contain more than 20 per cent of foreign material are, when shipment is made direct, admitted free into the United States. They are exempted from the internal revenue tax of the Philippines but pay the equivalent of the internal revenue tax collected on similar articles in the United States.

Export taxes were a peculiar feature of the Philippine fiscal

system and they were utilized as a means of discrimination. They were confined to a few of the principal Philippine exports. It was provided in 1902 that the amount of these taxes should be deducted from the duties paid by the Philippine goods in American ports, and in the case of goods admitted free to American ports the export taxes were refunded if the goods were delivered and consumed in the United States. This provision made this country the principal market for Manila hemp and benefited directly certain large American consumers of this product. All export taxes were repealed in 1913 and the Government Act of 1916 makes them unconstitutional.

In developing their closed-door policy in the Philippines, the American people have maintained an attitude both naïve and uncritical. They have pursued this policy at the same time that they have urged the open door in China and only occasionally has a leader raised his voice to point out the inconsistency. We have enacted discriminatory legislation in the Philippines apparently with little appreciation of its narrowness. Genuinely liberal forces, in fact, have at times sanctioned it on grounds of justice to the Filipinos and fairness to ourselves. Our policy, however, appears in a different light when it is placed side by side with the French policy in Indo-China and the Italian policy in Eritrea, and when it is viewed not from the purely nationalistic standpoint but from the standpoint of world policy and the League of Nations.

THE SPIRIT THAT GUIDES THE NEW ERA

More important than anything else in the commercial negotiations of the immediate future is the spirit which guides the nations. Each nation has a right to security and to the preservation of its essential interests. At the same time, however, it should be considered seriously what may be given up in order that wider interests may be further advanced. The cynic may sneer at ideals of international good-will and world peace but if we once admit that nations cannot, by coöperation, further them, we confess the bankruptcy of our civilization. There are problems arising in international intercourse which nations individually or bargaining two by two cannot solve adequately. By the establishment of a league of nations we merely extend government

where it did not exist before. International government like any other, however, must have principles which form the basis of its administration. Among these principles unquestionably should be unconditional most-favored-nation treatment among nations (Australia, New Zealand, South Africa, and Canada being considered nations for this purpose) and the open door in all dependent parts of the world. If these principles are accepted by the United States our traditional position on the most-favored-nation clause goes, the Brazilian arrangement becomes untenable, and the open door must be adopted in the Philippines.

May there be any exceptions to these general principles of equal treatment? Undoubtedly there are cases where close political and economic bonds would justify even from an international standpoint a reciprocal arrangement. Our reciprocity agreement of 1902 with Cuba falls in this class. Under it American products are granted concessions in Cuba's import tariff and Cuban products enjoy preferences in American markets. A discontinuance of this arrangement would be a distinct injustice *to Cuba*. Her prosperity depends upon her political and geographic relations with the United States and no other country could take our place. But such cases are comparatively few and should be permitted only when approved by the League of Nations. The important thing is to adopt the general principle of equal treatment and to recognize what it implies.

The United States and Mexican Finance

By Edward D. Trowbridge
Author, *Mexico Today and Tomorrow*

THE question of Mexican finance, and especially that phase of it which is involved in the claims of foreign creditors of Mexico, is one of the post-war financial problems which, sooner or later, must receive the serious attention of the United States. In the abstract the general question of Mexican finance is not only one of suitable investment for American funds, but includes the broader problem of so aiding and safeguarding the stability of the government of a neighboring country as to prevent a recurrence of internal disorder and consequent international friction. Involved in the general problem are very complicated phases having to do with the claims of creditors of Mexico—claims of holders of Mexican securities and claims of individuals and corporations for losses or damages incident to the revolutionary period through which Mexico has passed. To arrive at any permanent and satisfactory solution of the problem each factor must be considered with reference to its relation to the whole, and with this in view I propose to take up, in proper order, the immediate conditions and the future needs.

Classes of Claims Against Mexico

Broadly speaking, claims against Mexico may be divided into three classes, namely: (1) the claims of holders of direct obligations of the Mexican government; (2) claims of individuals or corporations for damages sustained during or as a result of the revolution; and (3) claims of security holders of the National Railways of Mexico. Strictly speaking, the third class should be included in the second, but it will be treated separately for reasons which will be explained later on.

It is not the purpose of this article to deal with individual claims or items, or to attempt any study of questions of priorities of claims or of guarantees involved, but rather to deal with the question as a whole. Without entering into any analysis of the various items constituting the Mexican national or government

debt, this item will be treated as a lump sum. The national debt proper, including various external loans either secured or unsecured, an interior loan, and various minor items such as scrip issued to pay government employes, and a redemption fund to take up bonds given in exchange for the so-called Vera Cruz money, amounts to a total of some $300,000,000, United States currency. This figure does not include some state, federal district and municipal loans for which the national government is guarantor, and these items, with unpaid and accrued interests, may bring the total to a round figure of $350,000,000 (for convenience all figures and calculations will be reduced to their equivalent in United States currency). A considerable portion of this total is in loans at 4½ per cent, but for round figures may be taken at 5 per cent, calling for annual interest payments of about $17,500,000.

DAMAGES ATTRIBUTABLE TO THE REVOLUTION

The next item to be considered is the debts of the Mexican government due to damages done to property during the revolutionary period. There is a popular impression that this item will involve dealing with colossal figures, but this impression is not, I believe, justified by the facts in the case. The principal losses may be grouped under the following heads: destruction of equipment and buildings belonging to the various railways, government-controlled lines and privately-controlled lines; damages to tramway, electric light and other public utility properties; destruction of or damage to factories, sugar mills and other industrial plants; destruction of buildings and equipment on farms, plantations and ranches; loss of live stock; and, finally, financially considered, loss of life. The National Railways system estimates that it will require 50,000,000 pesos, or $25,000,000, to get back into full operating condition, but, due to high prices of materials now prevailing, this estimate should probably be increased to about $40,000,000. The National Railway lines constitute about two-thirds of the railway mileage in Mexico, so that, for purposes of estimating the government's liability due to losses of railway property, we may assume, roughly, a total figure of $60,000,000. As the National Railways will be considered under a separate head, only one-third of this

amount need be, for the moment, considered, although technically, of course, the government must pay the National Railways. Urban public utility properties suffered small damage through destruction, and while hydro-electric properties lost considerable copper cable, their generating plants, as a whole, suffered little. The great mining properties at Pachuca, El Oro, Cananea, Guanajuato and other points suffered only nominal physical damage. Many small mining plants were obliged to close down, and in some, perhaps many cases, their buildings were wrecked or damaged as a result of local disorders. The losses on this class of properties were relatively small, as the damage, while apparently great, was really superficial. Properties in the great oil fields have suffered no damage. Factories have been damaged here and there, but, generally speaking, they are located in large centers which were under constant control, and their losses have been insignificant. Sugar mills in the state of Morelos were wrecked by Zapatistas, and while the complete wreckage of the buildings and machinery on the *haciendas* in this state involves a serious delay in getting back to a production basis, the fact remains that the intrinsic values of the properties—lands, canals, ditches, roads, and so forth—have only been slightly affected. On the average farm or ranch property in other sections buildings remain intact, and the losses are confined to portable equipment, live stock killed or driven off, and so forth. In other words, the potential earning power of rural properties, the basis of real wealth in Mexico, has not been seriously affected. It is true, that, due to disordered conditions, many large agricultural properties have earned nothing, and that, in consequence, their owners have no working capital with which to resume business, but, considering the matter as one of government liability for physical losses, the damage has been relatively small. It is, of course, very difficult, without exhaustive examination, to determine or estimate what the sum total of physical losses to properties will amount to. At a rough guess I should say that the legitimate claims of foreign individuals and corporations will not exceed $60,000,000, including $20,000,000 for railway losses, as noted above. If a sum of $10,000,000 be added for payments which may be made for loss of life, and a further sum of $30,000,000 be added for awards to Mexicans for damages to rural properties,

then the whole amount for which the government would be held liable would amount to a total of $100,000,000. This would call for an annual interest charge, at 5 per cent, of $5,000,000.

In considering the question of losses we can include only such losses as would be allowed by an impartial commission charged with the settlement of the matter. Doubtless the total of claims filed, or to be filed, will greatly exceed the estimate given above, partly because of the general tendency, in dealing with a government, to inflate claims, and partly because the actual losses due to destruction of property, through loss of earning power or through depreciation of neglected property, often exceed the purely physical loss. For instance, the total foreign investment in Mexico amounts to about $2,000,000,000, and the greater portion of this investment, due to the disturbed conditions or to the fall in the value of the peso during the paper-money period, produced little or no revenue from 1914 to 1916 inclusive, representing, in three years, a total loss, at 5 per cent, of $300,000,000. While this loss is a real and actual loss, it would not be possible, even with a wild stretch of imagination, to ask the government for compensation for it. The government cannot be held responsible for lack of business, nor could it be held to account for poor earnings because of depreciation in the currency. In so far as revenue was lost because of disturbed conditions or because of currency values, the situation may be compared to the indirect losses due to a fire in a large manufacturing plant—namely, that while these losses may be actually greater than the direct fire losses, no claim for them can be properly made against the fire insurance company.

LIABILITIES OF THE NATIONAL RAILWAYS COMPANY

The affairs of the National Railways Company are so interwoven with those of the government that the liabilities of the railways company may almost be considered as government liabilities. The government's position in the matter is far from satisfactory. Its interest is fivefold: first, through subsidies granted to aid in the original construction of the roads; second, as guarantor of interest and principal on a large part of the bonds issued by the railways company; third, as holder of two-thirds of the common stock and of a considerable portion of the pre-

ferred stock of the company; fourth, as debtor through liability (as a government) for destruction of railway property; and fifth—and perhaps most important of all—through intangible but general interest in the shaping of the policy of a company whose affairs are of vital importance in the development of the resources of the country.

The lines were built by private capital but with the aid of the government, which, at a later date, in order to control future policy, secured, in connection with the consolidation of various companies, a control of the common stock, and was thereby placed in nominal control of the system. The government now finds itself in the position of having aided substantially, by subsidies, in the construction of the railways, of having expended a large sum in acquiring control of the common shares of the system, and of being tied up with large guarantees, covering interest charges and so forth, while its control is technically subject to the claims of various sets of mortgages, interest on which is badly in arrears. In other words, the government, in spite of large expenditures and guarantees, had only a weak equity in the property, and the upheaval in Mexico, through stopping earnings, has placed that equity in jeopardy. The government feels that for reasons of public policy it cannot relinquish control of the system, but it realizes that the claims of the various sets of bondholders must be considered.

The matter is greatly complicated by the fact that the National Railways Company, at its best, has never made a satisfactory showing. The company has, roughly, $250,000,000 in common and preferred shares, and $250,000,000 in bonds, notes and accrued interest, or a total of half a billion dollars in capital liability. Gross earnings from 1909 to 1913—before the revolution—were more or less stationary, the maximum reached in any one year being 64,000,000 pesos, or $32,000,000—a relation of 6.4 per cent as between gross receipts and capital account. Assuming that operating expenses would be two-thirds of gross receipts, there would remain a net of 2.3 on the total capital liabilities, manifestly an absurdly low figure. The highest net earnings of the system in any one year were 21,300,000 pesos, at a rate of about 2 per cent of the present capital liabilities. It is quite clear that there will have to be a reorganization of the finances of the

system on a basis of cutting down the total capital liabilities, and particularly with the object, in order to avoid future disaster, of reducing the fixed charges. Such a reorganization would naturally make provision for sufficient new money to provide additional equipment and thereby increase the earning power of the property.

A THOROUGH REORGANIZATION IMPORTANT

Holders of securities of the National Railways must recognize the fact that while the capitalization of the company is moderate for a system comprising some 9,000 miles of track, the capital account is far too high when considered in the light of earning power. The only hope of a great increase in earning power is through a full development of the agricultural resources of the country, and such a development will only be accomplished with colonization and with the creation of a large class of independent small farmers. With present conditions of great estates—6,000 people own a total of 300,000,000 acres of land, or an average of 50,000 acres each—anything like a full cultivation of the soil is impossible, and the country, which has potential productive capacity to support 75,000,000 people, actually imports corn and wheat. For a proper program of development of national resources it seems important that the government should have a dominating voice in the railway question. Aside from this aspect, it seems probable that because of the condition of their finances most of the railways in Mexico—including many lines in which the government has no direct interest—will, sooner or later, come under the control of the government.

Financial houses, in the reorganization of railway properties, frequently make the mistake of trying to satisfy all classes of creditors by the issue of generous quantities of new securities having no intrinsic value and representing only some indefinite hope of value to be created in the remote future. There seems to be a sort of financial fallacy that if a man owns a hundred dollar bond representing fifty dollars in real value, he should receive, in a reorganization, sixty dollars in new bonds, twenty dollars in preferred stocks and thirty dollars in worthless common stock. Under this sort of a scheme the property in question emerges from the reorganization with a little more capital than before,

and while fixed charges are somewhat reduced, and a better appearance created by liberal use of varnish, the property faces a constant struggle due to its waterlogged condition. It is to be hoped that whatever is done with the National Railways will have in view the creation of a sound financial structure.

This is especially important because of the necessity for a great enlargement of the system in the future. There are great tracts of fertile land which have no railway communication, and any general program which provides for a full development of natural resources will call for an extensive scheme of railway construction. For the present, we may assume that with a financial reorganization and provision of considerable new equipment, the National Railways will be able to earn operating expenses and the major part of their bond interest. It seems improbable that, if properly maintained, the roads can earn all charges even on a more modest capitalization, and it will be well to assume that the government will be called on to pay at least $2,000,000 and perhaps as much as $4,000,000 per year to meet deficits. By charging a part of maintenance cost into capital account and by other manipulation of figures a fictitious showing could be made to conceal deficits, but this would only be accumulating trouble for the future.

Mexico needs money for a new government bank, and while the basis on which such money is to be supplied is not yet determined, it may be assumed that it will be self-sustaining, and need not, therefore, be considered so far as the question of government financial needs is concerned. It may also be assumed that the reorganization of the National Railways Company will provide money required for the rehabilitation of the system, and that the railway question need not enter into government finances except as to the question of an annual deficit as outlined above.

THE SITUATION SUMMARIZED

Summarizing the situation, then, we have the following items to be considered:

First: Existing government indebtedness amounting to roughly $350,000,000, calling for the payment of interest charges of about $17,500,000 annually.

Second: Payment of claims for destruction of properties, damages to railways (excepting the National Railways), etc., amount-

ting to $100,000,000, calling for annual interest charges of $5,000,000. To avoid raising this amount of money it seems probable that, under a proper organization of government finances, creditors in this class would take government bonds for a large portion of their claims.

Third: The National Railways need $40,000,000 for rehabilitation of their lines and for new equipment. This money will be provided, presumably, in a financial reorganization of the company, and it is assumed that increased earnings will take care of all fixed charges of the system except for a deficit of some $3,000,000 per year.

Fourth: Money is required, to an amount which may be placed at $50,000,000, for a new bank of issue, but if this money is obtained it may be assumed that it will be self-sustaining—in other words, that no question of interest charges, so far as government finances are concerned, need be considered.

Fifth: The government requires a considerable sum for general purposes and for the organization of an efficient rural police force to enforce order and to run down bandits, whose operations, in some sections, prevent resumption of agricultural pursuits. It is calculated that $50,000,000 will be required under the head of general needs, and this would call for an annual interest payment of $2,500,000.

Taking items one, two, three and five, there would be a total annual interest charge of about $28,000,000. More than half of this is for interest on old debt, at a fixed rate and presumably creditors under item two would be satisfied with 5 per cent bonds if they were assured as to prompt payment of interest. Money required under item five would probably have to be raised on a basis which would cost the government 6 per cent or more, and possibly total interest charges may amount to $30,000,000.

A POLICY OF MODERATION THE BEST

There has been more or less of idle talk of a loan of $300,000,000 or $400,000,000 to Mexico to enable her to pay off all her debts. Such a plan would provide for more money than is needed, assuming that creditors take a sane view of the matter. The provision of such a sum would inevitably result in extravagance, no matter what restrictions were imposed as to the disposal of the money,

and Mexico is, under a more modest program, far more likely to learn thrift and to realize the necessity of efficient administration than if she were in a position to command large sums of money. The development of two or three years of reconstructive program, accompanied by enforced thrift, will, later on, place the country in a position to obtain all the money she requires for further improvements.

Mexico has already learned much in thrift, and in place of a deficit, two years ago, of over $5,000,000 a month, she has, above her current military and civil administration expenses, a small surplus. It is expected that for the current year there will be a surplus of 20,000,000 pesos, or roughly $10,000,000. This, on a basis of the interest charges estimated above, would leave an annual deficit of $20,000,000. The total government income this year will be in the neighborhood of $90,000,000. An increase, therefore, of 25 per cent in income would enable the government to meet all its interest obligations. The amount of the national debt, in proportion to the wealth of the country, is very small, and, once normal conditions are restored, the load will not be a heavy one. Moreover, Mexico has gained, indirectly, through conditions brought about by the world war. To pay interest and meet payments on the principal of huge war debts other countries will, automatically, maintain high prices, so that Mexico, which has had no war expense, will profit by the sale of her products at higher prices than would otherwise have prevailed.

DIFFICULTIES OF MEETING THE DEFICIT

The problem of meeting the deficit of $20,000,000 is not, however, as simple as it may seem at first glance. The resources of the country are primarily agricultural. Disturbed conditions have seriously curtailed agricultural activity and consequently restricted production. Even where conditions permit resumption of work, the landowners are unable to operate their properties to anything like normal averages because they lack working capital. In many cases in rural districts greedy military chiefs have seized portions of crops and have otherwise discouraged landowners from attempting resumption of agricultural work. The problem is being worked out slowly, but, where a country has gone through several years of chaos it must inevitably take some

time to get back to normal conditions. Taxes on mines and oil production are as high as conditions warrant, and taxes on manufactured products cannot be increased without risk of killing industry. No further increase in taxes can be made on urban property without placing too much hardship on the tenants. Customs duties, if further increased, would only result in the restriction of trade. In other words, for increased revenue Mexico must look to her normal source of wealth, agriculture, and increased revenue from this source will come more or less slowly. It may be worth while, incidentally, to call attention to the general scheme of taxation in Mexico. The whole system is based on production. This scheme has been largely responsible for the existence of estates of enormous size. In the future some equitable form of land tax will have to be provided, but any attempt along this line at the moment would only amount to confiscation of properties.

THE USE OF FORCE UNWISE

For some years representatives of leading financial interests have said that Mexico must be made to pay her debts. Men of supposedly able brains have said that sooner or later the United States would force her to settle. Holders of British securities of concerns doing business in Mexico have said, rather glibly, that as soon as the war was over Great Britain would take the matter in hand, and that their government, either directly or through pressure on Washington, would dictate terms. This sort of talk implies either a refusal on the part of Mexico to meet her obligations, or a desire, through foreign intervention, to dominate the situation. Mexico has made no suggestion of repudiation, but simply has been unable, due to internal troubles, to meet her obligations. Any foreign intervention would be costly for all concerned—in dollars and cents would represent a tremendous expense.

Since we have had a practical demonstration, on a vast scale, of the cost of war, there has been some talk of bringing economic pressure on Mexico. This seems equally foolish, assuming, of course, that there are any hopeful signs in Mexico. Economic pressure can only mean one thing—wringing something out of the country at the expense of greater internal trouble. Mexico has

emerged from a state of chaos, and politically, socially and economically she is making progress. Given some financial help—not only in money but in the support of those interested materially—she will work her way out.

I have no desire to pose as an apologist for Mexico, and fully realize what foreigners and foreign capital have experienced during the past few years. I also realize that there are many serious problems confronting the government—political, financial, social and economic—and that these problems will require much time and patience in their period of solution. It seems to me, however, that a careful study of the situation would convince any reasonable person that the problems are receiving due consideration, and that every day brings Mexico nearer to the point of being able to take care of herself without outside aid or interference.

THE OUTLOOK IS ENCOURAGING

Elsewhere[1] I have dealt at length with Mexico's relations with foreign capital. The general conclusion reached in a study of the situation was that it would be quite useless to make on Mexico demands which she could not meet, and that all having interests in Mexico should unite to aid in a program which will enable her to get on her feet. Discussion of past troubles is idle. What is needed is material and moral aid in a constructive program. In this connection, it is worth while to call attention to the showing of the National Railways Company. That company, during the years 1909 to 1913, earned (gross) about $2,500,000 per month. Due to revolutionary troubles, paper currency and incidental causes, the earnings of the system dropped, by January, 1915, to $93,000. In January, 1916, gross earnings were $501,000, while a year later the figures were $1,336,000, and today monthly earnings, even excluding traffic handled for the government—troop trains and so forth—exceed $2,500,000. These figures clearly indicate that Mexico is rapidly "coming back."

In closing, I wish to make reference to the suggestion that Mexico could arrange a foreign loan by pledging certain specific taxes. This idea is a fallacy, as it assumes that such income can be spared. Moreover, financing on this sort of a basis is almost

[1] In "*Mexico Today and Tomorrow*" (The Macmillan Company, 1919).

certain to interfere with permanent financial stability. It may be compared to a manufacturing institution which borrows money from a dozen banks, giving its real estate as security to the first, its machinery to the second, its unfinished product to a third, its bills receivable to a fourth, and so on. If anything happens to upset the equilibrium, the claims of the different creditors tear the property to pieces, whereas, with one creditor, there would always be a chance of preserving the property intact. Professor Henry C. Adams[2] says:

> A sound financial policy will not impair the patrimony of the state. . . . It is a fundamental principle of constitutional law that each legislature shall hand down to its successor all the rights and powers and jurisdictions which it received from its predecessor; so in matters of public finance it is incumbent that each succeeding administration shall find as broad a field from which to supply its needs and as fruitful a source of supply as the administration which preceded it.

Mexico's creditors should get together, arrange to give her sufficient money to care for urgent needs, give her time to get back to a normal basis, arranging for resumption of interest payments on a graduated basis, and lay out a permanent financial structure which will put the future credit of the government on a sound basis.

[2] *Finance*, p. 4.

An International "Gold Fund"

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ONE of the promising proposals which has come to the front during the discussion of international settlements growing out of the war with Germany has been that of a so-called "gold settlement fund." Suggestions relating to this matter have appeared in the press from time to time practically ever since the beginning of the Peace Conference at Paris, and discussion of the subject had been in progress on a more or less tentative basis for some time even before the conclusion of the armistice on November 11. These suggestions, although vague so far as expressed in the public press, do not represent an idea of equal vagueness, but on the contrary embody a well matured plan which in its general outlines has the support of many competent students of finance. The problem of putting some such plan into effect, therefore, is not dependent for its solution upon the outcome of any academic discussion, but on the contrary involves only certain easily adjusted matters of technique.

Indeed, the proposal has nothing to do with the war with Germany and the treaty growing out of it, and it is erroneous to speak as if there were any such connection. Nothing has happened since the opening of the war to make such a plan more feasible or on the whole more desirable than it was before, save that the war has demonstrated the dangers and difficulties attendant upon the actual process of shipping gold, while it has also brought into a clearer light relation of credit to gold in international banking. The relation of the war to the proposal would seem to be merely that one outcome of the war may be the establishment of a condition of closer coöperation and friendship among nations which were previously deeply suspicious one of another. In this way it may well be that the foundation of an international gold fund may have been laid, and if so, there is at least one good economic result of the struggle.

PROPOSAL OF FEDERAL RESERVE BOARD

In its annual report for the year 1918, the Federal Reserve Board included the following paragraph:

> The successful operation of the gold settlement fund has suggested the possibility of avoiding shipments of gold from one country to another in settlement of balances arising out of ordinary commercial transactions, and the board is ready, if authorized to do so, to undertake negotiations looking to the establishment of an international gold exchange fund, or to assist in any way in its power in negotiations which may be begun by a government department looking to that end. The board realizes that the successful operation of a plan of this kind is dependent upon the stability of the governments concerned, and believes that definite plans cannot perhaps be worked out until a stable peace has been assured. The board would point out the importance of excluding all transactions arising from the adjustment of war obligations and of limiting the work of the fund to current commercial and exchange transactions. The gold deposited in a government bank or banks should be in the nature of a special or trust fund, and all nations participating should deposit their proper proportions of gold. Assuming that the leading nations of the world will be at peace for a long period of years, there seems to be no reason why an international arrangement of this kind should not operate as efficiently as our own gold settlement fund, which has cleared enormous transactions between distant sections of a country of vast area. The saving of loss and expense incident to abrasion and transportation charges and interest on gold transferred will be enormous, and the advantage to the commerce of the world will be incalculable. It will probably be necessary in the beginning to limit participation in the fund to the United States and the entente allies, and to a few of the leading neutral nations, but it is conceivable that all civilized countries may eventually be participants.

It is thus clear that there is available for the consummation of this gold settlement plan not only a well matured basis of theory and investigation, but also a definite banking organization which stands ready to undertake the work of installing the new system. The essential suggestion contained in this paragraph is found in the sentence which refers to "the importance of excluding all transactions arising from the adjustment of war obligations and of limiting the work of the fund to current commercial and exchange transactions." Thus limited, the board's recommendation may be regarded as the further working out or development of the gold settlement fund installed in the federal reserve system and successfully transacting the inter-federal reserve bank business at the present day.

ORIGIN OF GOLD SETTLEMENT FUND

Although the theory of clearing had been elaborately studied and recorded during the years prior to the adoption of the Federal Reserve Act, comparatively little had been said about systems of national clearing. The provisions of the Federal Reserve Act with respect to both clearing and collection constituted a very distinct contribution to the discussion of currency and banking reform—a contribution which was essential in its character because of the fact that under the Federal Reserve Act it was not proposed to install a central bank but a group of independent banks which must, therefore, communicate in some way with one another. Indeed the idea embodied in the gold settlement fund was in many ways novel in the field of American banking thought, and it is precisely at these points of novelty that suggestions were furnished which afterward afforded the basis for the present proposal to establish an international fund.

The clause of the Federal Reserve Act relating to this matter was found in a general clearance and collection section of the original law which included among other provisions a sentence authorizing the Federal Reserve Board to act as a clearing house for federal reserve banks or to designate some one federal reserve bank to act as a clearing house for all. The mechanism by which this general provision, whose intent, however, was sufficiently clear, was subsequently worked out and put into effect, is found in the report of the preliminary organization committee of the federal reserve system, which after several months of investigation rendered in June, 1914, a report, most of whose recommendations have since been accepted as the basis for the organization of the practical work of the federal reserve banks. This statement can best be understood by quoting from the report of the preliminary organization committee in question the following paragraph relating to the instalment of the gold fund. The matter is not only of importance historically but now assumes great significance prospectively because of the fact that the gold settlement fund of the United States is today practically the only exemplar from whose experience may be copied the provisions which will be necessary for the successful development of the proposed enterprise, if undertaken. The plan proposed by the committee was as follows:

To settle the balances between reserve banks, growing out of these various transactions, a clearing house is suggested, as provided in the act, in the clause which specified that: "The Federal Reserve Board . . . . . may at its discretion exercise the functions of a clearing house for such federal reserve banks or may designate a federal reserve bank to exercise such functions. . . . ."

If one of the federal reserve banks should be chosen as a clearing house, for convenience of location it might be the Chicago bank; but this function of clearing would be better assumed by the Federal Reserve Board. For many reasons it would be well to establish the clearing house at the national capital. Since each reserve bank will carry a single account with every other reserve bank, subject to simultaneous debit and credit, the bulk of the interchange of business will clear itself. Balances will arise partly on account of the seasonal changes which will alter the debit and credit relationship between the districts, and partly on account of the fact that membership in the system will not be proportionately equal as between national and state banks in different regions.

The plan herewith proposed is based upon the requirement that each federal reserve bank deposit with the Federal Reserve Board clearing house all of its gold beyond that which will be sufficient to take care of local needs. This gold deposit, carried on the books of each reserve bank in a separate item as a part of its reserve funds, can be used in either of two ways or in a combination of them to effect settlement which will be explained later. Settlement need not be made between reserve banks oftener than weekly, since to require daily settlement might prevent the operation of the natural clearing effected by the interchange of ordinary business transactions. Therefore, at the close of business on each Thursday, each reserve bank should wire the clearing house the amount of the balance and should state whether debit or credit relations exist between it and other reserve banks. Allowing one day, Friday, for adjustment of any differences in the advices received, the clearing would be effected on Saturday. How this shall be done depends upon a consideration of the following possibilities:

The gold deposited with the clearing house may be credited upon a simple set of books to each bank so depositing. Clearing would then be effected by a charge and credit on the books, and advice would be made to the reserve banks. This is the simple plan, but it has one apparent disadvantage in that the banks would have no tangible evidence of the ownership of the gold other than a book credit. Consideration might, therefore, be given a plan of issuing certificates in large denominations against the proposed gold deposits as clearing house currency certificates are now issued. Upon the direction of the Federal Clearing House, the debtor reserve banks would mail these certificates to the creditor banks to pay balances. These two plans might be combined so that, although the clearing of balances would be effected by book transfers of gold at the Federal Clearing House, the debtor banks could anticipate this settlement by mailing certificates to creditor banks prior to the day of settlement. Both these plans, however, seem less effective and more cumbersome than the first plan. Very little (if any) gold would ever need to be transferred between the reserve banks, and such operations would be limited to transactions between the banks and the clearing house. The banks, in turn, would be able to loan or borrow, buy or sell

gold in dealing with each other, and the transactions would be arranged through book transfers at Washington.

EXPERIENCE UNDER FUND

While it would be interesting to detail at length the practical experience had in the operation of the gold settlement fund at Washington, established in the early part of 1915 along the lines mapped out in the committee report just cited, it will suffice for the present purpose to draw only a very few general lessons from the proposal then made. Those who disbelieved in the practical feasibility of such a method of settling transactions over the country as a whole urged that the settlement should be confined as narrowly as possible in its scope and that the adjustment should not take place very frequently. Accordingly, the settlement fund cleared only in round numbers (multiples of $1,000) and cleared only one side of the accounts between the banks. Moreover, as a concession to prejudice, it was agreed to gather the actual gold of the gold settlement fund into the hands of the Federal Reserve Board itself, and not only this, but to have the gold as thus collected and stored in the Treasury of the United States represented by gold certificates of $10,000 denomination, which should be physically in the possession of the officers of the Federal Reserve Board. The custody of these certificates was accordingly entrusted to the Secretary's office of the Federal Reserve Board, and at the outset the "transfers" in the gold settlement fund were physically effected by changing the ownership of or title to the gold certificates thus in the custody of the board.

It required an experience of only about three years to modify this plan in the direction of simplicity, while retaining all of its general theory. In consequence, the gold settlement fund is today simply a trust fund in the hands of the Treasurer of the United States and represented by an account on his books, while transfers are effected by clearing both sides of the accounts of all banks with one another and permitting tranfers to occur in any desired sum. Since the 1st of July, 1918, moreover, the clearance has been effected daily, so that today we have in operation a daily system of clearance between federal reserve banks involving the transfer of ownership in a trust fund held by the board through the Treasury Department, such transfers being effected by a book-

keeping process and being evidenced only by the changes in the accounting of the banks themselves and by the certificates issued by the custodians of the fund at Washington. On this basis transfers now occur at the rate of about one billion dollars weekly.

That the fund works well, that without it the immense operations of the Treasury Department during the period of American belligerency could not have been effected, and that the use of this system of clearing has effected an enormous saving by avoiding movements of gold and currency from one part of the country to another, is today admitted and needs no demonstration. The practical question in connection with the proposed international fund is therefore simply this: Are there conditions arising out of international relationships which are essentially different from those arising between different parts of a great country like the United States? This, in one form, is very similar to the question which was asked when it was proposed to establish a number of federal reserve banks. At that time it was pointed out that in most foreign countries a single central bank existed, but when in reply the suggestion was made that the United States in wealth, in area, and in population was equal to several such foreign countries and as such could be regarded as entitled to several central banks, there was no answer.

APPLICATION TO INTERNATIONAL CONDITIONS

Before considering the application of the idea internationally, it is worth while to observe that subsequent to the initiation of the gold settlement fund in the United States, and as a result of observation of its successful working, an attempt was made through negotiations between the United States and the South American nations to bring about the organization of an international gold fund for the peoples of the Western Hemisphere. What was then done has been described in the Federal Reserve *Bulletin* for March, 1919, in the following language:

> The growing interest in the possibility of an international gold clearance fund, especially since the report of the Federal Reserve Board for the year 1918, recalls earlier efforts in this direction made by the International High Commission. This body, established by the governments of American Republics, and consisting of national sections, each of nine jurists or financiers with the Minister of Finance as chairman, had from the outset the task of bringing about more stable financial relations between Latin America and the United States, especially

through the establishment of the gold standard, or gold exchange standard wherever not in effect. Study of this problem led to the conviction that two steps would greatly facilitate the eventual extension of substantial assistance by the United States to those Republics of Latin America which were in need of help to set their currency systems on a firm basis, first, the use of an international clearance fund, and, secondly, the use of a money account. The executive council of the commission prepared in the early summer of 1916 a draft of a convention, with a view to provide for the inviolability of such a fund. The draft and explanatory memoranda were in due course submitted to the Ministers of Finance and to the diplomatic officers of the Republics participating in the work of the commission. After careful consideration the governments of seven countries have expressed a willingness to conclude the convention with the United States, and the matter is the subject of serious study in other countries.

Delay in the practical application of the system thus devised has not been due to any unforeseen obstacle in the way of putting the proposal into effect, but has been solely the product of the usual postponements involved in getting diplomatic action from a number of countries, coupled with the natural and inevitable tendency to await post-war conditions before finally embarking upon a plan whose success would be greatly furthered by freedom of movement for specie. It is enough to say that the proposed gold fund for the peoples of North and South America has commended itself to the governments of seven countries whose officers have committed themselves to a belief in the feasibility and desirability of such an international arrangement.

INSTALLATION OF PROPOSED FUND

It is desirable that if any such plan as is now under consideration should actually be adopted, it should be applied upon the most effective, simplest and most desirable basis, without regard to individual or national prejudice or self-interest. First of all, it may be well to consider exactly what such a fund would do, following the analogy of experience had under the federal reserve system. The most obvious purpose of the fund is that which its name implies, *viz.*, "clearance" or "settlement." This occurs in the gold settlement fund just as in every other clearing house, through the obvious process of offsetting claims against one another. The only difference is that which arises out of the fact that the clearance is made by telegraph. Bank A in Dallas owes Bank B in Minneapolis $500,000. Bank B in Minneapolis owes

Bank A in Dallas $450,000. A balance of $50,000 therefore exists in favor of Bank B. Now if these two banks were situated at the same place their representatives would meet and exchange bundles of checks and drafts, with the result of "washing out" $900,000 of the aggregate indebtedness, leaving a balance of $50,000 to be paid by one bank and $50,000 to be received by the other. This might be settled by an actual transfer of gold or by the transfer of a check on another bank. Under the gold settlement fund what happens is that the checks and drafts are exchanged by mail, while the "settlement" occurs in Washington by telegraph—that is to say, each bank takes the others' word for the statement that it has a given amount of claims falling due. If through error the statement turns out to have been unwarranted, correcting entries are easily put through, but these occur seldom. The gold settlement machinery in Washington is a settlement machinery which takes no cognizance of the actual checks and drafts, but leaves them to be interchanged as their owners see fit, and at the pleasure of these owners.

This function of the settlement could occur as easily between, say, the Bank of Commerce in Toronto and the Federal Reserve Bank of Minneapolis, as between the latter and the Federal Reserve Bank of New York. There is no reason why if the Bank of Commerce were a party to the clearing transactions it should not clear as easily as any of the federal reserve banks, notwithstanding it is situated on the other side of the Canadian border. The same would be true if some agency were designated to act for all of the Canadian banks as an aggregate. This is obvious, but a more difficult case occurs if we suppose a participation in the gold settlement fund at Washington to be assigned to the Bank of England. True, the Bank of England is not much more distant from New York by telegraph or cable than is the latter from San Francisco, and communication by cable may be as prompt as the telegraphic communication between Washington and the federal reserve banks. The same thing would be true if the office of settlement were located in London. This office would hear promptly by cable from the twelve federal reserve banks and it would hear through messenger from the Bank of England. The physical process of settling might be substantially the same as under the gold settlement fund.

The first difficulty arises in the fact that such a settlement involving the Bank of England, would necessitate an arrangement for the adjustment of sterling to dollars. Indeed, some of those who are most enthusiastic about the international gold fund have proposed that as a preliminary there be established a uniform money of account. This is in no sense necessary to the establishment of the proposed fund. The difficulty of the situation is apparent only, rather than real as the gold context of the coin is the real consideration. In the first place, the Bank of England might undertake to enter into the gold settlement fund simply for the purpose of adjusting claims in sterling, in which case clearance could be effected with the federal reserve system (and its constituent member banks) for sterling claims, while the Bank of England would clear any such sterling claims as it might be carrying, the result being a balance in sterling either in England or in the United States. Exactly the same arrangement might be made with respect to dollars. Assuming that the participating banks in the United States were possessed only of dollars and sterling, and the Bank of England only of sterling and dollars, or of either, a double clearance might thus take place, there being, in effect, two gold settlement funds operated in one joint management.

This is not at all a fanciful assumption. The experience under the gold settlement fund has furnished an exact analogy to it. Some time after the gold settlement fund was first established it was desired by federal reserve agents to have a fund established for their benefit under exactly similar conditions. This was done, and today the "gold settlement fund," as generally used, includes not only the gold settlement fund proper but also the so-called "federal reserve agents' fund." In the proposed international fund there might be a "sterling fund" and a "dollars fund" with clearance in either at the will of the participating parties. Suppose, however, that after the clearance had been effected it should appear that a balance in sterling was owing to Great Britain by American banks, while a balance in dollars was owing to the United States by British banks. The question would then come up of establishing a rate at which sterling could be converted into dollars on the books of the fund. This would be no more difficult than the establishment of any foreign exchange rate. The rate which should control would be the rate current on the date of

clearance. Or if, as a result of the operations of the fund, the actual market rate were not deemed satisfactory, clearance could be effected at a purely conventional rate determined upon in advance. This would be as fair for one side in the transaction as for the other, since any advantage resulting from it in one clearance would be likely to be offset in the next. Although the operation would become more complex as more and more countries were admitted to the advantages of the clearing, the same principle which has just been developed could be worked out with entire success and with but little technical difficulty. Any such fixed valuation tends, however, somewhat to becloud the situation. The real basis of settlement should be gold by weight and any standard gold coin should serve as a means of settlement at its fine content.

We may now consider a much more difficult phase of this problem of settlement. The purpose of the settlement, as we have taken for granted, is that of avoiding the shipment of gold. We know, however, that shipments of gold grow out of so-called "adverse balances." We further know from our theory of international trade that such adverse balances correct themselves in due time in order to bring about an equality of exports and imports between trading countries. It is not desirable, therefore, to have gold shipped to rectify balances only temporarily adverse. Indeed, if such shipments were to be made on each occasion the service performed by the clearance fund would be more limited than it should be. What is desired is to provide a means of adjusting adverse balances just as such balances between federal reserve banks are adjusted. If, for example, at the present time the Federal Reserve Bank of San Francisco finds that, as a result of heavy payments through the gold settlement fund its ownership of gold in the fund is exhausted, it may if it chooses put more actual gold in the fund. It is more than likely, however, to apply for an inter-bank rediscount, in which case the federal reserve board orders a certain quantity of eligible paper held by the Federal Reserve Bank of San Francisco discounted by (let us say) the Federal Reserve Bank of New York. This means that the Federal Reserve Bank of San Francisco has turned over certain values to the Federal Reserve Bank of New York, while the Federal Reserve Bank of New York has ceded to it a portion of its ownership in the gold fund. The transaction is

essentially a sale of paper for gold. It will not be resorted to without good reason because the Reserve Bank of San Francisco does not wish to lose the discount on the bills which have thus been transferred, but if necessary it will incur this sacrifice of discount rather than be obliged to obtain and ship gold or discontinue making transfers through the gold fund. This is all simple so long as the rediscounts are made between the members of the same system, and so long as there exists a central unifying agency or board which has the power to order the rediscounts made. Needless to say, such discounts cannot cancel a permanently adverse balance but can only give time for automatic adjustment.

But internationally could the same process be applied, or not? Undoubtedly it could through the use of a similar mechanism. If, for example, the central committee of control were authorized to assign bills of certain designated kinds to any creditor country in order to secure the cancellation of the credit balance of that country as stated in gold, it would be possible for a debtor country at any time to offset an unfavorable balance by turning over bills which might be in its possession, provided they were eligible. This, indeed, is exactly what is done today through the mechanism of competitive banking. The operation of the international gold fund would in no respect alter the present situation save in the matter of technique. Indeed, it would not be precisely necessary to have the power referred to lodged in the hands of the central committee since the discounting of the eligible paper could be arranged by cable between any two of the countries which were parties to the clearance. The former method would be the simpler and more certain, but the latter could be employed, if desired. Without some such arrangement for the centralization and immediate recording of international rediscounts and sales of paper designed for the purpose of settling and adjusting temporarily adverse balances, the international gold settlement fund would fail to attain its complete usefulness. With such an arrangement it would be perhaps the most beneficial innovation in international banking since the introduction of cable communication.

SOME THINGS TO BE AVOIDED

As already intimated, there are some practices connected with the operation of any such plan which are to be avoided. In this

respect, unfortunately, the gold settlement fund of the federal reserve system affords instruction, just as it does upon its constructive side. It has been a mistake in some senses that the gold settlement fund in the United States has been a "fund" rather than a "system." It would have been as well had the gold been left where it originated—in the vaults of the federal reserve banks —instead of being massed in the subtreasuries or at Washington. No such system ought to exist at all unless the different members of it are able to trust one another's reliability and honesty. Granted such a degree of trust or confidence, the exact location of the gold is of no consequence. It is not necessary to "deposit" the gold anywhere. If it is set aside or earmarked in the vaults of the participating nation enough has been done. Eventually gold may be shipped if a permanent balance seems to have arisen against one of the holders of gold. No such shipment, however, will take place under ordinary conditions.

Again, it is desirable to avoid any measures which would tend to make the operation of the fund either expensive or slow. It was a mistake in the case of the gold settlement fund that daily clearance was not initiated at the outset. The fact that it was not so initiated gave rise to telegraphic transfers through the fund on non-clearing days, and these at times grew so numerous that it would obviously have been more economical to make the clearing more frequent. It was this fact perhaps more than any other which eventually led to the installation of the daily clearance. Even if there were but few transactions in an international gold settlement fund, the actual clearance should be as often as there was anything to afford a basis for settlement. "Red tape" operations or charges for transfers would constitute another serious barrier to success. The cost of conducting the gold settlement fund has been only about five one-thousandths of one per cent. An international fund would be more expensive, partly because it would necessitate its own staff, but at the utmost it would be an inexpensive method of adjusting indebtedness. Whatever the cost was, it should be divided pro rata among the participants after it had been ascertained.

The establishment of an international gold fund will of course be opposed by various interests and influences. Eventually, however, the application of the underlying principle of the plan will undoubtedly be adopted.

Coöperation in International Banking

By John E. Rovensky

Vice-President National Bank of Commerce in New York

DURING the war the allied nations were compelled more or less to pool their resources. While this pooling naturally took the form at first of intergovernmental arrangements, it soon developed into close banking coöperation. Until we ourselves entered the war, moreover, American coöperation with European Allies was largely worked out through the banks, American banks aiding largely in the loans which were made to the various allied nations. As a consequence we are today in much closer touch with the bankers of the world than we have ever been before. Of course, the large banks of New York and a few other large cities have had for many years intimate dealings with bankers in other countries, but bankers in the smaller interior cities of America have rarely had significant contacts beyond our political boundaries. The war has changed this. We find the general body of bankers in the United States—and the same rule applies to the so-called provincial bankers of the European countries—willing and eager to enter into international financial relations. The world has been brought closer together, and international coöperation will from now on be much more common. The markets of the world have also been brought into closer contact. A merchant of Cleveland thinks no more of dealing with Melbourne than he formerly thought of dealing with St. Louis.

Our Financial Responsibilities

Intimate international banking relations for the future rest, however, on something much more fundamental than the mere breaking down of our past inertia and provincialism. The heavy loans we have placed in Europe give us vital interests there which our banks must look after. The present weakness of our European Allies, and for that matter of our enemies, makes it necessary that our banks should go very much further than anyone dreamed that they would go before the war in financing goods in shipment from one country to another. The financing of goods in shipment,

moreover, will for a time involve much more than ordinary commercial banking. Where international trade under normal conditions is a matter of balancing goods against goods with a mere temporary advance of banking funds to bridge over for a given country the period between heavy imports and heavy exports, there is likelihood that for a time at least the shipment of goods will be a one-sided movement, and that the backflow from Europe and many other countries to the United States will be securities and obligations rather than liquid commodities. The financing of international commerce, therefore, will involve in no small measure not merely the advance of short time funds to merchants, but also the problem of placing European securities with investors, so that funds to pay off the short time bank loans may be obtained. The commercial banker proper may not engage in all of this, but the American banking system as a whole, including investment bankers, private bankers, great bond houses, and the like, will be obliged to do it.

American banking capital, in other words, and the services of the American banker must extend into markets which have hitherto found their own banking systems adequate, not alone for their domestic requirements but also for the service of foreign countries. American banking services must be performed in the great European financial centers, and American banking credits must be at the service of the commerce of those great commercial nations which in the past were more than able to supply the financial needs of their commerce.

RECIPROCITY BETTER THAN COMPETITION

In some form or other our banks must take over work which foreign banks have hitherto performed. The question arises, however, as to whether they shall do this by establishing branches in foreign monetary centers, or whether they shall do it by coöperating with the existing banks of these countries. I believe that we can get further if we do not invade the home fields of foreign banks with our branches, but rather coöperate with them on the basis of *reciprocity*. Reciprocity—this must be the keyword of our future international relations. The Frenchman will look with more favor upon us if we form alliances with his own institutions than if we compete with his institutions by setting up branches in his financial centers.

This has, indeed, been the American practice throughout our history on the whole. Texas banks are almost as far from New York as European banks are. New York banks, however, have had intimate relations with Texas banks, and these relations have not been strictly competitive. Rather, they have done business *with* one another. Texas banks have borrowed largely from New York banks. Generally, Texas banks have kept funds on deposit with New York banks. Texas banks have sent funds to New York for investment, either in short time commercial paper, or in stock exchange loans, or simply for deposit with the New York banks which have paid a moderate rate of interest on the deposits. Credit information has been freely interchanged between New York banks and Texas banks. If a Texas bank found one of its customers growing so big that he could not secure enough loans from his local bank to meet the needs of his business, it has often arranged that he should secure additional loans from its New York correspondent. And so in general throughout the country, banks in the various financial centers have had correspondent banks throughout their respective regions, while New York banks have had correspondent banks in all parts of the country. Funds have flowed freely from one part of the country to another as seasonal variations or other causes led to a surplus of loanable bank funds at one point and a scarcity at another. Of course, our federal reserve system has been devised to make such coöperation much more effective.

None the less, America has remained a country of independent banks. We have today around 30,000 banks of all kinds in the United States, each an independent center, each officered by men whose interests are wrapped up in the progress and success of the locality in which the bank is placed. Our banks have been local banks serving the interests of their own localities rather than subject to control from greater institutions hundreds of miles away. In no small measure, the marvelous development of the United States has been due to the vigor, independence and initiative of our independent country bankers, who, however much they might be aided by counsel, information and funds from the financial centers, were none the less not hampered by the necessity of submitting every transaction to the approval of bankers in the financial centers.

Had the great banks in American financial centers possessed authority to establish branches in smaller places to compete with, and perhaps drive out of existence, the country bank, our banking history would have been one of turmoil and bitter political struggle. As things stand, relations among American banks are friendly and the interchange of banking services is highly efficient.

How to Profit from Past Experience

Some criticisms have been made of our American banking system on the ground that it is impossible that 30,000 independent institutions could coöperate efficiently in a great crisis. The great struggle through which we have just passed has proved the contrary. Without authoritative control, and acting primarily by suggestion, the federal reserve board, the federal reserve banks, and the leading bankers in the various financial centers have been able to organize and marshal the banking resources of the country in a manner that has been superb. Even so delicate a matter as the rationing of credit to the customers of the banks, discouraging good customers from borrowing in order that funds might be freer for the government's financial operations or for more essential industries, something which it was supposed that independent competing bankers could not easily do, was brought about during the war with wonderful thoroughness and efficiency. We carried the peak of the load of war finance with ease.

There is little likelihood that our system will ever be called upon again to bear so great a strain. That we did it, when fundamental factors are considered, is really no marvel. Given the patriotism of our local banks—and they are patriotic; given their intelligence and knowledge of local conditions—and they possess these; given their desire to accomplish the ends which the government indicated as necessary and desirable; they were able to meet the emergency with much more efficiency and with much less friction, each banker acting in the light of his knowledge of local conditions, than would have been the case had we had thousands of branches subject to general rules of thumb which left little discretion with the local managers.

Some Defects of Branch Banks Abroad

Our American banking experience, then, gives us the guiding principle which we would do well not to ignore in extending our

international banking relations. We should seek to utilize wherever possible the existing banking machinery in the countries which we desire to help. If we establish branches among them we shall need years to build up organizations which will be in harmony with the spirit and purposes of these foreign countries. We shall need years to gain the credit information and experience which is essential to sound banking. We have gone far in the United States in standardizing credit information and in standardizing credit conditions. Foreign bankers and foreign business men have used radically different credit methods from our own. Credit information is, on the whole, much more confidential with them than with us and consequently not fully available except to those maintaining close relations with the foreign banks. It is far better for an American bank to operate through a foreign bank which possesses intimate knowledge of credit conditions in its sphere of operations than for the American bank to do the business directly itself. Thus it would be easily possible for a New York bank to establish a branch in Lima, Peru, under a competent hired manager sent from America. But from such a branch we could get no such services as would be rendered by a friendly Peruvian bank. The officers and directors of the Peruvian bank would be men of standing and influence in the community, intimately familiar with its affairs. We could not hire men of this quality to serve in a branch bank in Lima. The point is more obvious, perhaps, if we reverse the supposition. A Lima bank could not possibly be as well served by its own branch in New York as it is by having a leading New York bank as its correspondent.

Of course, there may well be some services which a close affiliation with an existing bank cannot give. This, however, does not necessitate the establishment of a branch. American banks will do better to have resident representatives in the foreign fields who can look after the interests of their clients but at the same time handle the distinctively banking business through a friendly bank of that locality.

This does not, of course, preclude the establishment in exceptional cases of branches of American banks. In undeveloped countries we must open our own export and import houses, our own banks and other agencies. In any country which has, how-

ever, a well developed economic structure and a developed banking system of its own, relations should be developed by utilizing existing institutions rather than by creating new and alien institutions.

The English are by far the most experienced international bankers. Let us hear the opinion of the justly celebrated dean of the banking profession, Sir Edward H. Holden, addressing the shareholders of his great bank, the London City and Midland. He said in part:

> There is a difference of opinion among English bankers on the question of foreign banking. One class of banker believes that the proper course is to open abroad branches of their own bank, in which case they will compete with the foreign banks in their own country. Another class believes that the better policy is to work from London in conjunction with the foreign banker, and not to go into direct competition with him. . . . . Our fear is that we may make the foreign bankers unfriendly towards us by opening branches in their own countries in competition with them, and that we may drive their business to Germany or New York. If this should ultimately happen, the opening of branches abroad by English banks will have acted prejudicially against London retaining her position as the financial center. . . . . Further, if we retain the friendliness of these foreign bankers, they will show a greater interest in their clients dealing with traders in this country than they would show in case we became unfriendly by going into competition with them.[1]

Another well-known English banker corroborates this view. Sir Robert Harvey, chairman of the Anglo-South American Bank, referring to Sir Edward Holden's speech, says:

> I direct your attention to a statement of policy on the part of the chairman of one of the foremost of these banks who informed his stockholders that he considered it to be an incorrect policy for themselves and similar banks to establish branches in foreign countries, and that he preferred to enter into working arrangements with banks trading outside Great Britain.
>
> This is a policy which we cannot but think is, for a variety of reasons, the correct one.[2]

It is much more difficult for an American bank to cover the foreign fields by means of banking alliances than by means of branches. Our great banks which have followed the plan of developing foreign alliances have spent years of patient endeavor in the process, while a branch may be established over night. It

[1] The London City and Midland Bank, Ltd., Extraordinary General Meeting, Friday, September 13, 1918, pp. 16, 18, 20.

[2] London *Economist*, October 26, 1918, p. 593.

is likewise usually more expensive for an American bank to do its business through a banking alliance than through its own branch, but the fruits of a banking alliance are very great and are of a sort that money cannot buy. By a banking alliance, the American bank secures the friendly coöperation of influential citizens of a foreign country—the friendship of men of affairs who cannot be hired for a salary—who have no wish to become the employes of an American (to them, a foreign) bank, but who are glad to enter into an arrangement by which, on terms of equality with us, they assist in promoting the business intercourse of the two countries.

Reciprocity, not colonization, must be the keyword of our plan of international banking.

The International Labor Situation

By W. Jett Lauck
Secretary, National War Labor Board, Washington, D. C.

BROADLY speaking there are two important aspects to the present international labor problem. The first is definite, concrete and immediate. It has to do principally with the formulation and adoption of certain labor standards, agreement as to which has slowly developed through the medium of international conferences and discussions by socialist organizations, labor unionists and other agencies during the years preceding the war. The conferences which have recently been held directly or indirectly in connection with the Peace Conference have finally resulted in the crystallization and formal announcement of these standards.

The other feature of the international labor problem while more intangible and remote is in reality far more significant and is fraught with more far-reaching consequences. It shows clearly the development of a change in the fundamental attitude of labor towards industry in general. It carries with it a more or less definitely developed program of constructive action which contemplates extreme modification or revolutionary change in the relations between industrial workers and industrial institutions and between the state and industry.—It holds forth the hope of a more complete democracy which is to be attained both by the use of political action and by the exercise of economic power or pressure.

Background of the Present Movement for International Labor Standards

International action affecting labor has in past years taken shape in (1) international socialistic organization; (2) formation of international trade union bodies; (3) establishment of semi-public and private associations of students and workers interested in social and political reforms; (4) official conferences and treaties. The non-official trade union and socialist organizations have formed the background of the official phases of the movement. They have developed the motives for the action taken and have

supplied the political and economic sanction to the international labor movement.

INTERNATIONAL SOCIALIST MOVEMENT

The Socialist Internationale is the present organized expression of the international socialist movement. It dates formally from 1864 when Karl Marx and a group of radicals organized the International Workingmen's Association. This association continued active for less than ten years, but was revived in 1889. Its latest International Congress was held at Copenhagen in 1910 at which delegates from thirty-three nations were present. The earlier association held seven conferences. The revived organization has held nine international congresses.

The International Socialist Bureau, with headquarters at Brussels, was established in 1900, and is the permanent organization of the national delegates. The so-called international secretaries have met annually or more frequently since 1904. The executive committee is composed of Belgian socialists.

Both industrial and political reforms are on the program of the Internationale. The resolutions of the 1910 Congress may be taken as typical of its demands of this international socialist movement.

(1) A maximum workday of eight hours.
(2) Prohibition of work of children under fourteen years.
(3) Prohibition of night work except when necessary.
(4) Uninterrupted rest of thirty-six hours once a week as a minimum for all workers.
(5) Unrestricted right of free combination and association.
(6) Inspection of working conditions by authorized agencies upon which labor is represented.

In the political field the Congress has demanded ultimate complete disarmament and the abolition of secret diplomacy.

INTERNATIONAL TRADE UNIONISM

The international workingmen's movement has developed contemporaneously with the international socialist movement. The first general trade union congress was held in Paris in 1886, and a larger and more important one in Zurich in 1897. In 1912 about thirty trades were organized internationally, the largest

and most important being the metal workers and the miners, each of which had over a million members. In 1913 the international secretaries of these various international craft organizations met at Zurich for the first time. The respective trades or crafts had hitherto been holding their independent conferences. This joint meeting of the secretaries, or secretariats as the offices are termed, was another move in the direction of greater unity in purpose and action of the trade union movement. Principally the conference hoped to bring about a closer association between the International Trades Secretariats and the International Secretariat which represented the various trades and federations.

Purely trade union activities, as distinguished from political action, have absorbed the attention of the international craft federations. All of them have favored the eight-hour day. The miners have advocated the nationalization of mines. Transportation workers, dock laborers, and seamen advocate the nationalization of the railroads and the means of production. It has, as a whole, represented the more prudent and conservative elements of the trade-union movement.

The International Secretariat mentioned above is the central executive organ of the International Federation of Trade Unions. It was organized in 1898. Before the war twenty-nine national trade union federations were affiliated with it, together with the six federations in the States of the Commonwealth of Australia, or altogether thirty-five affiliated federations. In addition thirty-two craft federations were part of the International Federation. It claimed before the war an affiliated membership of approximately 7,500,000. Eight international conferences have been held—the last one before the war, at Zurich, and one during the war, at Berne, October 1–4, 1917.

INTERNATIONAL ASSOCIATIONS FOR LABOR

Besides the political and trade-union organizations which the workman himself has built up internationally, individuals outside the labor movement have organized various international bodies which have concerned themselves in the cause of labor reform and regulation. These are composed of economists and interested workers in the field of labor reform. Among the associations of the kind may be mentioned the International Congress on Occupa-

tional Diseases; International Association on Unemployment; Permanent International Committee on Social Insurance; International Association for the Protection of Native Labor; and the International Association for Labor Legislation. The latter is the most important. It was formed in Paris in 1900 by a group of economists who met at the time of the Paris Exposition of that date. In 1901 a permanent international labor office was organized. The office has a semi-official character as it is supported by contributions voted by the various countries represented in the association. While twenty-five countries have established national branches of the International Association only fourteen contribute to its support funds voted from the respective public treasuries. Seven conferences have been held by the association, the latest at Zurich in 1912 in which twenty-two countries participated. Various delegates' meetings have been held between sessions of the more formal conferences.

This International Association for Labor Legislation has been closely and influentially associated with the drafting and preparation of international labor conventions and treaties. It has published studies and outlined policies in such matters as the prohibition of the night work of women and children, use of the dangerous white or yellow phosphorus in match manufacturing, administration of labor laws, protection of workmen from accident and disease, weekly rest day, and hours of labor in continuous industries. The most recent action of the association was the submission in June, 1918, of a memorandum requesting the incorporation in the final peace treaty which will formally terminate the World War of a program of international labor legislation. It was proposed that the international labor office should be made the official agency for the enforcement of the international labor standards which it was hoped would become a part of the future organization of the nations.

OFFICIAL INTERNATIONAL ACTION PRIOR TO THE WAR

As the result of the activities primarily of the International Association for Labor Legislation as well as of favorable official support on the part of certain European governments, a number of international conferences were held before the war and various labor treaties were entered into between different countries. Al-

together there have been signed thirty bipartite agreements affecting twelve European countries and four non-European states or colonies. Two polypartite treaties were signed as a result of the Berne conferences of 1906. The treaties or agreements entered into by the various nations fall into three groups or classes: (1) Those affecting the movement of labor, i.e., emigration and immigration conventions; (2) those respecting equality or reciprocity of treatment of native and alien labor; and (3) those providing for uniform labor standards in the signatory countries.

The treaties, falling into that class which aim to accord to alien workmen the advantages of the labor legislation of the country to which they migrate, were, before the war twenty-seven in number, four being savings bank agreements, four social insurance conventions, and nineteen having to do with accident insurance. Thus this group of treaties covers the larger part of all international agreements. The savings bank agreements permit citizens of one country to transfer deposits without charge from the savings banks of the other country. Social and accident insurance treaties make applicable to resident alien workmen the terms of the laws of the country of their employment or grant to alien dependents of native workmen the benefits of the law of the country of their employment or grant to alien dependents of native workmen the benefits of the law of the country of the alien workman entitled to benefits under such law.

Besides the above savings banks and insurance conventions, and belonging in the class of treaties granting equality of treatment of native and alien workmen in various countries are two special treaties entered into between France and Italy and between France and Denmark. The former, ratified as of June 10, 1910, provides reciprocal protection of children under the labor and educational laws of the countries; the latter ratified August 9, 1911, subjects to arbitration every issue raised between the countries concerning their respective labor laws.

Treaties which have affected labor standards in the adhering countries have been more difficult of negotiation. In fact only two such agreements are in force, namely, those relating to the prohibition of the night work of women and of the use of white or yellow phosphorus in matches. Both of these were signed at Berne, September 26, 1906. Thirteen European countries sub-

scribed to the agreement to prohibit, with certain exceptions, the night work of women. It provided that night work in industrial employment should be prohibited for all women without distinction of age within certain exceptions. Eleven hours constitutes the necessary period of night rest including the period 10 p. m. to 5 a. m. The treaty as to the prohibition of phosphorus in manufacturing matches although originally signed by only seven countries has practically become effective throughout the world.

PROPOSALS FOR LABOR PARTICIPATION IN THE PEACE CONFERENCE

After Europe had become involved in war, discussion of the way in which voice should be given to organized labor opinion regarding the final treaty of peace centered around two proposals: (1) for a labor and socialist conference at the same time and place as the Peace Conference; (2) for labor representation in the peace delegations of each of the countries participating in the settlement.

The first proposal was made originally by the American Federation of Labor at its annual convention in 1914, and specified that the conference should be international. The Canadian Trades Union Congress and the French Confederation Generale du Travail both indorsed the American proposal after a considerable lapse of time, but other allied labor groups preferred an inter-allied instead of an international meeting. The British Trades Union Congress in 1916 voted 2 to 1 against the American motion, but in 1917 the Congress not only voted that an international conference was a necessary preliminary to peace, but in October, 1918, joined with the British Labor Party in making a formal request of the British government for permission to attend such a conference.

The principle of an inter-allied conference was indorsed by both inter-allied conferences held in London in 1918. The February conference appointed a commission to organize delegates to the conference.

The second proposal, namely, for labor representation in the various peace delegations, was first urged by the American Federation of Labor at its 1916 convention. The Berne conference of October, 1917, framed a resolution asking for the participa-

tion of trade union representatives in the consideration of social and economic questions at the Peace Conference. The Confederation Generale du Travail and the Inter-Allied Labor and Socialist Conference of February, 1918, have each voted for labor representation at the peace table. The British Labor Party and the Trades Union Congress also requested the British government to include an official representative of labor in the peace delegation. A similar request was made to the French government.

The most conspicuous definition of allied war aims by labor was furnished by the Memorandum on War Aims framed by the British Labor Party and the Trades Union Congress jointly. The war aims were originally drawn up by a subcommittee of the national executive of the Labor Party, consisting of Arthur Henderson, Ramsay MacDonald, F. W. Jowett, G. H. Roberts, George J. Wardle, and Sidney Webb. They were presented to the Inter-Allied Labor and Socialist Conference in London, August, 1917, but agreement on the terms was not reached and a standing committee was appointed to give further consideration to the memorandum. The following month the Trades Union Congress and the Labor Party joined forces in the task of bringing about a general agreement of war aims among the working classes of the allied nations. The aims were revised, and after approval by the national committees of the two bodies, were presented to Premier Lloyd George as the opinion of the organized workers of Great Britain. The memorandum was accepted by the Labor Party in conference on January 23–25, 1918, and by labor representatives of the allied nations in conference on February 20–23, 1918.

THE LABOR COMMISSION OF THE PEACE CONFERENCE

With the assembling of the Peace Conference in Paris, a Commission on International Labor Legislation was designated. Its president was Samuel W. Gompers, president of the American Federation of Labor. Among its other members were the prominent Belgian socialist, Mr. Emile Vandervelde, minister of justice in the Belgian government; Mr. George M. Barnes, former labor member of the British War Cabinet, representing England; and M. Colliard, minister of labor in the French Cabinet. The commission began its sittings early in February and issued its report on March 5, 1919.—During this period a labor and socialist

conference was also held at Berne with socialist representatives from Austria and Germany present, and an elaborate series of recommendations issued.

THE REPORT OF THE LABOR COMMISSION

The report of the Labor Commission of the Peace Conference practically constitutes a demand that an international labor charter shall be included in the peace treaty. The draft, as adopted by the commission is principally based upon the British proposals.

The commission's report demands the adherence of the powers signatory of the treaty of peace, to the Berne 1906 international convention's resolutions forbidding night work for women employed in industry, and the use of white phosphorus in match industry; it promulgates the reforms adopted at the Berne 1913 conference, and intrusts the international labor conference, provided for in the report, with the realization of a series of reforms, which briefly analyzed are as follows:

1. No children under fifteen years of age to be employed in industry;
2. Young people's employment to be subject to a number of other regulations mentioned;
3. Limitation of the working day for workers to eight hours in factories and mines;
4. Saturday half-holiday to be introduced into all countries;
5. Weekly rest of at least thirty-six hours, taken from Saturday to Monday, to be allowed;
6. All laws and orders dealing with the protection of workers to apply in general to home industries;
7. Social insurance laws shall be extended to home industries;
8. Special protection and insurance for motherhood is provided, and women are not to be employed in mines or dangerous trades;
9. Women are to receive equal pay with men for the same work;
10. An international schedule of deleterious materials, which are to be prohibited, shall be kept;
11. Railway cars of all countries must, within five years, be fitted with automatic couplers adaptable to all cars;
12. Medical inspection of persons employed in home industries is to be arranged, and inspection of dwelling houses;
13. No hindrance is to be put to the free combination and association of workers in all countries and the infringement of this rule is to be made a punishable offense;
14. Foreign workers shall have the right to wages and conditions of work

agreed to between the trade unions and employers of trade. Failing such agreements, foreign workers shall have the right to wages customary in the locality;

15. There is to be no prohibition of emigration or of immigration in a general way, this rule not to affect the right of the state to restrict immigration temporarily in a period of economic depression or for the protection of public health;
16. The state shall be free to enforce a certain standard of education;
17. Wages boards with equal representation of employers and workers shall be set up by the governments for the fixing of the legal minimum rates of wages in cases where collective agreements between the workers' trade union and employers have proved impossible;
18. Unemployment is to be provided against by the linking up of the existing labor exchanges so that information can be provided with regard to the demand and supply of labor;
19. Unemployment insurance shall be established in all countries, as well as state insurance against industrial accidents;
20. A special code of law for the protection of seamen is also to be established.

Labor departments of each state, and their industrial inspectors, shall in the first place be responsible for the establishment of these international standards, but for the more effective carrying out of the treaty and the further protection of international labor regulations, the contracting states are required to set up a permanent commission consisting equally of representatives of the states which are members of the League of Nations and the International Trade Union Federation. It shall be the duty of this commission to call yearly conferences of representatives of the contracting states for the purpose of promoting industrial labor legislation. The conference is clothed with power to adopt binding regulations within the range of its powers. The stipulation is further made that at least half of the voting members of an annual conference shall consist of the representatives of the organized workers of each country. The adoption of these proposals, as can be readily seen, would have a far-reaching effect upon the labor standards of some of the countries involved.—They would also result in more nearly equalizing international competitive conditions in industry. The provision for annual conferences with power to issue binding regulations would also add to the guarantee of their general acceptance and application.

FUNDAMENTAL INTERNATIONAL TENDENCIES

Aside from the adoption of these far-reaching international standards, the international labor situation is also characterized by certain fundamental tendencies which are even more significant. —The most revolutionary expression of this general movement is to be found in the actual attempt of the Soviet Republic in Russia to socialize or nationalize land and industry and the announced intention of the new German and Hungarian governments to adopt a modified program of the same general character.—In Great Britain the same tendency has also become manifest although in a much more conservative form.—In the United States a program of like import is being advocated and the same fundamental tendency is observable.

A PEACEFUL REVOLUTION IN ENGLAND

The course of events in England may be accepted as an index of the general tendency in industrial relations in the other great countries of the Western world. There, indeed, the determination of the workers upon real democracy, equal industrially and politically, is effecting a revolution of the system. But it is, in a remarkable sense, a peaceful revolution. Nowhere and in no period, marked by the abandonment or overthrow of established custom or vested authority, has a government or the powerful groups within its domain displayed with such emphatic success the superiority of brains over bullets in the bridging of a crisis.

To the outside world, the situation in England has been a threatening one since the beginning of the war. The signing of the armistice signalled, it seemed, the inception of civil strife, but the quality of common sense had been so widely diffused, not only among the parties to the industrial equation but also among those in whose hands rest the delegated political power, that the menace of a destructive industrial conflict has been actually made the vehicle for a national and coöperative endeavor so to reconstruct the system as to meet and go with the tide of sentiment and conviction for a drastic change. Instead of a period of fruitless sabotage and open warfare, suspending production and impoverishing the nation, the British effort has proceeded so far as to justify the statement that, in peace, the will to war has been overcome by reason and the relations of what were prospective enemies so read-

justed as to indicate that industry is at the dawn of a new day—the day of 100 per cent of possible production.

Unquestionably, the outstanding fact in the current readjustment in England is that industrial self-government has been established. Control of the lives of the industrial collectivity by absentee capitalists has given way to machinery for, if not actual exercise of, control from within by joint action of management and employer. The arbitrary authority of the exploiter has succumbed to the will of the mass for participation in the decisions. This has been accomplished, first, by the organized and enlightened desire of the workers and, second, by the readiness of government and employers to see in that desire, not a heresy to be put down by force of arms and ruinous lockouts, but a clue to an inevitable new chapter in the history of human progress.

On the other hand, an amazing switch of attitude on the part of the organized workers toward the question of production has been observed. In a comparatively short time old and almost ingrained ideas of restrictions on output have been discarded in favor of an intelligent awareness that production is the only measure of the return upon industrial effort and the indications are for a harmonious coördination of brains and brawn toward every ounce of production of which the machine is capable.

There has been a mutual change of heart among employers and workers with respect to organization. Employers, once the hated enemies of the workers in their efforts to band together, now as a rule, do not see evil in labor unionism and, indeed, express a desire to see the workers fully organized. The opposition of workers to federations of employers, once considered a piratical attempt to enslave the mass by concentrating a class, is gone. In its place is a wish to have all employers organized so that all of the workers and all of the employers may work hand in hand. This summary deliberately ignores the radical, and powerless, minority which would smash all and reconstruct a new society, for the reason that the importance of this minority, by this time, must be admitted to be inconsiderable.

At the suggestion of the government (the Whitley Commission) employers and workers are forming, above the shop and plant groups, councils, representative of both sides, to govern entire industries and, above that, industry as a whole, on the basis of

principles guaranteeing full justice to every individual, the right of every family to a fixed minimum standard of living, the right of every worker to sufficient opportunity for the pursuit of spiritual and intellectual satisfaction.

Through the machinery of an industrial parliament, all of the elements of society in England have come together in agreement upon the application of certain rights, already conceded in principle. On April 5, 1919, this Parliament, comprising 800 representatives, approved the program of its sub-committee calling for the formation of a national industrial council, universal operation of industry on the basis of a forty-eight-hour week, a universal minimum wage, maintenance of unemployed, and raising of the age of child workers.

That the manner in which the government, the employers and the constituted leaders of organized labor have collaborated during the past six months has the whole-hearted approval of the mass of workers is not to be doubted. Particularly, is this believed to be correct in view of certain developments since the signing of the armistice. All England looked for industrial strife. Qualified persons, excellent observers no longer discussed what was going to happen. They had reached the second stage and were speculating upon the forms the revolution would take. Some had predicted that the trade union officials would be torn from their places of authority and strong rebels given the mandate to lead the working-class conquest. What actually happened was that the revolution was started but never finished. As a bud too early in the spring it lived a brief day. The workers' council in Belfast mimicking the Russian development swayed to and fro and then fell dead. The revolt on the Clyde had been expected and happened and ceased to happen. Glasgow underwent a spell of frenzy. Down in London the underground railwaymen tied the city up for awhile. But the mass of the workers held aloof. Nevertheless, there came a day when affairs seemed serious. The Triple Alliance, comprising the miners, the railway workers and the transport workers, presented demands, the rejection of which, it was officially stated, meant a general strike, paralyzing and if continued long enough, starving, England. But the work of wisdom had proceeded too far. The industrial parliament had secured the faith of the nation, and there was a decidedly favor-

able reaction on the part of the miners to the action of the government in starting a searching investigation of every fact about the digging and disposition of coal. Against a quarter of a million miners who continue to work, there are now about 60,000 now on strike, and they are confined to the most radical section of "Radical Wales."

TENDENCIES IN THE UNITED STATES

As compared with the United States conditions in the past in England have been less favorable to the British worker and the British worker has, by the force of circumstances, a more deep-seated feeling of solidarity. During recent years in Great Britain education in economics has spread among the workers through a system of so-called tutorial classes, meeting one night a week. Leaders, organizers, secretaries, and committeemen have been developed in surprisingly large numbers. The workers are organized in greater proportion than the workers in the United States.

It is still the fact, however, that the outlook in the United States is for a close application of the British experience. Although the American Federation of Labor, and the old line labor leaders, have not deviated from their former fight for standards, the war has infused into the industrial life of the country a new conception of the relation of the worker to his job and to his employer, and *vice versa*. In what might be termed a bill of industrial rights, drawn up by representative labor leaders, employers and representatives of the public, acting under the name of the War Labor Conference Board during March, 1918, the government of relations between workers and employers in war industries was to be based upon certain guarantees and rights, among them concessions which had until that time been the provoking causes of innumerable strikes and disputes. The right of workers to organize without fear of loss of their jobs probably was the most significant of the clauses of the agreement. It also granted the same right to employers; established the eight-hour day as a principle of right if not actually to be applied universally; recognized and affirmed the right of every worker to a living wage—a wage sufficient to insure the subsistence of the worker and his family in health and reasonable comfort—and placed the toil of

women upon a plane of value equal to that of men by guaranteeing equal pay for equal work performed.

The War Labor Board was subsequently formed and proceeded to conciliate and arbitrate industrial controversies in accordance with these principles, and in the application of the principle of collective bargaining was forced to set up systems of bargaining which now seem to be the foundation for a general readjustment of American industrial life. In every case collective bargaining was granted as a right. Under the guidance of administrators assigned by the board, workers held shop and plant elections, chose committees from among their fellows, and these committees proceed to function as representatives of the whole group of workers in such matters as the fixing of wages, determination of hours, settlement of grievances, and conditions of employment. Under the stimulus of the action of this board, the principle of collective bargaining has been extended in an extraordinary way, and has been the occasion for the consideration and adoption of committee systems in many of the basic industries of the country.

Out of the war, and its consequent high costs of necessities, and out of the inspiration furnished by the workers of Great Britain, to say nothing of the thinking that the war has aroused in every man and woman, there has also developed in America a type of unrest that will not be allayed by the mere winning of increased wage rates, shorter hours. This fact has been made manifest in a variety of circumstances, not the least of which has been the formation of labor parties with constructive political programs in various industrial centers. Definitely, this is not significant as an indication of a labor revolt, but it is significant as an indication of a state of mind.

Above all other attempts to express the needs of the changing time in America up to date stands the program of the Roman Catholic War Council. This program, drawn by a committee of four bishops of the church, not alone encourages labor to resist wage reductions and advocates such steps as the establishment of coöperative stores to be owned by the working class, government competition with monopolies, a legal minimum wage, social insurance against illness, unemployment and old age and the taxation of child labor out of existence, but it also indorses the movement of labor to obtain a voice in the management of industry,

and, even goes so far as to declare that industry must somehow pass into the ownership of those who operate it, asserting that "the full possibilities of production will not be realized so long as a majority of the workers remain mere wage earners."

The capitalist, says the report and program, "must cultivate and strengthen within his mind the truth . . . . . that the laborer is a human being, not merely an instrument of production; and that the laborer's right to a decent livelihood is the first moral charge upon industry." And, further, a living wage is not necessarily the limit of the workers' just demands, in the opinion of the bishops, for "after all, a living wage is not necessarily the full measure of justice. . . . . In a country as rich as ours, there are very few cases in which it is possible to prove that the worker is getting more than that to which he has a right if he were paid something in excess of this ethical minimum."

In the general tendency towards the adoption of collective bargaining in this country, however, lies the chief analogy to the English situation. Works committees will undoubtedly in time come under the control of organized labor. They will in turn be federated into district boards and into joint industrial councils covering the basic industries. These councils will in their turn be federated into a national industrial council or congress in which representatives of employers and employees will meet to discuss labor and industrial problems. As a matter of fact, at the present time a national industrial congress to consider measures of labor readjustment is being vigorously agitated.

THE SIGNIFICANT FACTOR IN THE INTERNATIONAL LABOR SITUATION

In the light of these events and tendencies the conclusion is irresistible that the great war which has just closed marks the beginning of a new and revolutionary era in its bearing upon industrial relations and conditions. The significance of the French Revolution of more than a hundred years ago was political. It marked the beginnings of political democracy. After a century's experience with political democracy the workers of the world seem to have reached the decision that political democracy without a corresponding measure of economic rights and freedom is a sham and a delusion. In one way or another, they are reach-

ing out for the means of adjustment of economic institutions to democratic ideals. They are seeking to gain this end both by a larger degree of control in the direct management of industry from within and by the coercion and direction of industry through political action. The effect by either method is towards industrial democracy. This is really the significant feature of the labor problem both nationally and internationally at the present time. The labor movement, while it is directly concerned with higher standards and better conditions, is no less indirectly striving towards the subordination of our industrial institutions to our political institutions and ideals. The international labor problem will hereafter consist in the development and adaptation to our political institutions of a system of industrial constitutionalism and judicialism. This will be brought about by the effort to realize industrial democracy.

Hours of Labor in Foreign Countries

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THE universal 8-hour day appears to be in slow process of realization. An age-old demand of the workers of the world, it is now one of the principal outcomes, as far as labor is concerned, of the various social revolutions breaking over Europe. The realization of an 8-hour day is the most significant evidence of determination on the part of the worker to assume a station of respect, authority, and leisure among his fellows.

That work is a means to an end, and that diversity and a leisure for the cultivation of home life, social pleasures and the higher virtues is the end of life constitute the underlying philosophy of the short hour movement. However, it is undoubtedly true that the 8-hour day is now receiving its strongest support from the idea that shortening hours will require a larger man power to sustain production. This is peculiarly a trade union doctrine, and has been pressed home at present on account of the threat of unemployment under demobilization of the vast armies.

Yet in the long run it remains true that the deepest justification for the shorter workday is not economic but cultural and social. Shorter hours mean a higher degree of education for the workers, more pleasure in the work, whatever it may be, and make possible improved housing and higher standards of living. The education of the public forum and the public press cannot be effective for that part of our population which is required to work for hire 10 and 12 hours a day. Moreover work done continuously for such hours necessarily becomes monotonous and depressing and there is need to counterbalance its untoward effects upon the human psychology by some means of recreation and pleasure.

But this again the long hours of work prevent because it is necessary that the worker should have his home near his place of work in the crowded industrial centers. Not until the laborer is assured of a shorter workday will it be possible for him wholly to live in houses of pleasant rural or suburban surroundings distantly

removed from his place of work. The hours a man works become frequently a determining factor in the character of his home and home life.

Ultimately, too, the most important test of the standard of living of a people is the hours of labor of its working forces. The continents of Asia and Africa are the countries of low standards where people live nearest the line of bare subsistence and suffer most from ruthless exploitation. These countries are also the home of the 11 and the 12-hour day.

HOURS OF LABOR IN THE PRINCIPAL INDUSTRIAL COUNTRIES

Few countries publish adequate statistics as respects the hours of work in their industries. Very few have as full data on the subject as are contained in the reports of the United States Census Bureau, the Federal Bureau of Labor Statistics and the various state bureaus of labor, factory inspection offices and industrial commissions in this country. Data on hours of labor in different industrial countries are to be had only from very diverse sources, as will appear in this compilation. The most reliable data are probably those furnished in various reports on collective agreements gotten out by the continental European countries. But the material on the whole is fragmentary, and cannot be said to be more than illustrative. The material presented here covers in general the principal manufacturing industries, and to a less extent transportation, building and construction work. Commercial and office employments are not generally represented in the information gathered.

The data have been classified by countries, first, because manufacturers are believed to be most interested in it from that point of view, and also because the material is somewhat fragmentary and does not supply information for all industries in the different countries.

The period for which the data are applicable varies very considerably. Much of it is pre-war material and thus shows normal industrial conditions. Variations in hours of labor take place slowly so pre-war conditions represent the present situation fairly well. Catastrophic changes have occurred, not during the war, but as a result of revolution. As these latter changes are reflected only in legislation they have been discussed in that section of this article.

Great Britain

The present industrial situation in Great Britain is one of extreme unrest. In no field has this unrest been more pronounced than in that of the hours of labor. The demand for shorter hours by one group of workers has been closely followed by that of another group. The *Labor Gazette* of the Ministry of Labor[1] summarizes the situation during 1918 in the statement that over 120,000 workingmen had their normal working time reduced over 450,000 hours per week. This is an average reduction of 3¾ hours per week for the workers affected. Of those affected 55,000 were employed in engineering and shipbuilding trades, 20,000 in the building trades and 11,000 in the clothing trades.

At the end of the year demands were being made for reduced hours in the largest trades in England. The textile workers, who have been working a 55½-hour week, have secured a 48-hour working week.[2] They demanded a 45-hour week. Street railway employes together with surface and tube men, by agreement, January 30, 1919, secured an 8-hour day exclusive of meal time. Motormen are not included.[3] The engineering and shipbuilding trades have been on a 47-hour week since November 18, 1918.[4] This change involves over 430,000 organized machinists and related workers.[5] The government has conceded the basic 8-hour day to the railway office staffs which took effect February 1, 1919; the railway shopmen, in common with the machine, foundry and shipbuilding crafts, have the 47-hour week.[6] The employers federations and the organized workers in the printing trades have concluded an agreement for a 48-hour week effective March 3, 1919.[7] The action taken by two famous employers may also be cited here. Messrs. Cadbury Brothers (Ltd.), Bournville, who employ about 6,000 persons have agreed to reduce the working week from 48 to 44 hours,[8] and the Ford Motor Company, of England, has granted the 40-hour week, a change from a 48-hour basis.[9]

[1] January, 1919, p. 4.
[2] *Consular Report*, Feb. 7, 1919.
[3] *London Times*, Feb. 8, 1919.
[4] *London Times*, Jan. 28, 1919.
[5] *British Evening Standard*, Dec. 23, 1918.
[6] *London Times*, Jan. 7, 1919.
[7] *London Times*, Feb. 26, 1919.
[8] *London Times*, March 3, 1919.
[9] *London Times*, Dec. 24, 1918.

In the British building trades changes of importance recently occurred at a conference in Manchester, February 19, 1919,[10] of the Northwestern Federation of Building Trade Employers and the National Federation of Building Trades Operatives. Under this arrangement which includes the districts of Lancashire, Cheshire, Westmorland, Cumberland, parts of North Wales and North Derbyshire, the hours worked per week are reduced from 54 to 46½ in summer and to a maximum of 44 in winter. Liverpool and Birkenhead districts anticipated the scheme in December last. Altogether about 35,000 operatives and 3,000 employers are affected by the scheme. It is more than likely, however, that similar arrangements will be made for the whole of the building trades in England.

The electrical construction industry at a first meeting of a joint industrial council for the trade at Leeds, January 22, 1919, obtained a 47-hour week, effective January 27, and with the same pay as for the 53-hour week. In general as a matter of fact, these decreases in hours have not meant any decreases in wages.

Tables 1 and 2 are presented on pp. 206 and 207, which show prevailing hours in the cabinet-working trades and in the boot and shoe industry as of October, 1914, classified by localities. Boot and shoe operatives work prevailingly 52 hours a week and cabinet-workers and upholsterers average about 51 hours a week.

Among women and minors there has been a tendency to reduce hours during the war. The factory inspector reports:[11]

> The tendency to reduce hours, which has been a growing feature since the early days of the war, continues, and cases where women and young persons are employed for hours in excess of the maximum weekly limits allowed by the ordinary provisions of the Factory Acts are now rare. With a view to ascertaining the hours actually worked by women and girls in munition factories a special investigation was undertaken by Miss Squire in the Southeastern Division. Visits were paid to a number of works selected so as to give a fair sample of the munition works in the Division, and in which the total number of women and girls employed was approximately 27,000. In only 5 cases did the hours actually worked exceed 60 per week; in 32 cases they amounted to 60: in 62 cases they were between 55 and 60; in 51, between 50 and 55; in 20 between 45 and 50; and in 7 they were less than 45. At a fair proportion of these factories the hours last year exceeded 60 per week.

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[10] *Manchester Guardian*, Feb. 20, 1919.

[11] *Annual Report of the Chief Inspector of Factories and Workshops* for the year 1917; London, 1918; p. 5.

TABLE 1. HOURS OF LABOR—BOOT AND SHOE OPERATIVES, OCTOBER, 1914

(Source: Great Britain Board of Trade—*Seventeenth Abstract of Labor Statistics of the United Kingdom;* London, 1915; p. 56)

District	Weekly
England and Wales:	
London[1]	52½
Anstey[1]	52½
Barnsley	54
Bishop Aukland	48
Bristol[1]	52½
Chesterfield	52½
Daventry	52½ and 54
Derby	54
Heckmondwike	52½
Hinckley, Barwell, and Earl Shilton[1]	52½
Ipswich	52½
Kendal	49½
Kettering[1]	52½
Kingswood[1]	52½ and 53½
Leeds[1]	52½
Leicester[1]	52½
Manchester	54
Midsomer Norton	53½ and 54
Newcastle-on-Tyne[1]	52½
Northampton[1]	52½
Norwich[1]	54
Nottingham	54
Paulton (near Bristol)	53
Rushdem, Higham Ferrers, and Wellingborough[1]	52 and 54
Stafford[1]	52½
Stone	52½
Wigston	52½
Wolverhampton	52½
Worcester	52
Scotland:	
Aberdeen, Arbroath, Carnoustie, and Dundee[1]	52½
Ayr	52½
Edinburgh	52½
Glasgow[1]	52½
Kilmarnock	52½
Maybole	52½
Ireland:	
Belfast	52½ and 54

[1] The rates and hours quoted are embodied in arbitrator's awards or in agreements between employers and workpeople, or have been fixed by local conciliation boards.

TABLE 2. HOURS OF LABOR—CABINET MAKERS, FRENCH POLISHERS, AND UPHOLSTERERS, OCTOBER, 1914

(Source: Great Britain Board of Trade—*Seventeenth Abstract of Labor Statistics of the United Kingdom;* London, 1915; p. 55)

Towns	Weekly
London	48 to 52½
Belfast	49½, 52½
Birmingham	54
Blackburn	49
Bolton	51
Bradford	51
Burnley	53
Dublin	50, 52½
Dundee	51
Edinburgh	51
Glasgow	51
Halifax	53
Huddersfield	51
Hull	53
Leeds	49½, 52½
Leicester	53
Liverpool	46½ to 54
Manchester	48
Middlesbrough	52, 53
Newcastle-on-Tyne	50
Nottingham	51½
Oldham	51
Preston	49½ to 53, 52
Sheffield	49½
Sunderland	50, 53
Swansea	54

Canada

The data as to hours of labor in Canada are so fragmentary as scarcely to deserve presentation. Such information as is obtainable tends to show that industrial Canada is passing slowly from a 10-hour to a 9-hour day. The war period has marked some changes in that direction. In 1910 the building trades were almost universally on a 10-hour basis except in some of the cities where organization was strong or scarcity of labor existed.[12] The 8 and 9-hour day prevailed more generally in the Western cities. Public works, which usually represent the highest standards in a

[12] Parliament. House of Commons. Proceedings of the special committee on Bill No. 1, an act respecting hours of work of public works. Ottawa, 1910; pp. 400–404.

country as respects hours, are still on a 9-hour day,[13] some even on a 10-hour day.[14]

Contract miners in the Crow's Nest Pass were granted an 8-hour day in May, 1918, and British Columbia employers granted their lumbermen (3,000 in number) an 8-hour day about the same time. The reduction was from a 10-hour day.[15]

The fourteen leading garment manufacturers of Montreal on February 13 voluntarily granted their employees a 44-hour week, effective April 1. The change affects 5,000 or 6,000 garment workers of whom 40 per cent are women.[16]

Commonwealth of Australia

No country in the world has such uniformly short hours of labor as Australia. It is the 8-hour country and has been so for years. There is not much doubt but that this is due primarily to effective union organization and control of the government by labor. The 8-hour day is not, however, incorporated in the laws of the Australian states, except in New South Wales. (See p. 231) It has been secured by arbitration awards and collective bargaining. In 1917 the number of organized workers—which partially represents the number affected by an 8-hour day—was over 500,000. The total population is approximately five million.

The nominal full-time hours of work for adult male employes averaged 48.1 hours per week in December, 1917; and for adult female workers 48.8. These figures are derived from data covering all industrial groups except agriculture and shipping. Each group is given importance according to the number affected by each specified nominal full-time hours. The longer hours of women workers is notable, and is due to the fact that a relatively larger number are in lower paid and sweated trades, protected, however, by minimum wage boards. More women, too, are in the commercial occupations, stores and offices, where hours are uniformly longer than in the factories. The longest hours prevail in transportation and in domestic service for both male and female employes.

The two tables which follow show weighted average nominal

[13] Canada. *Labor Gazette*. Feb., 1918, p. 141; Sept., 1918, p. 752.
[14] *Idem*. Feb., 1918, p. 142.
[15] *Idem*. May, 1918, pp. 368, 369.
[16] *Idem*. March 1919, p. 339.

full-time hours of labor per week of adult workers in the principal industries of Australia, classified first by states and second by industry groups.

TABLE 3. WEIGHTED AVERAGE NOMINAL FULL-TIME HOURS OF WORK PER WEEK OF ADULT WORKERS IN THE PRINCIPAL INDUSTRIES OF AUSTRALIA (EXCLUSIVE OF SHIPPING AND AGRICULTURE)

(Source: Commonwealth Bureau of Census and Statistics, Labor and Industrial Branch; Report No. 8, 1918; pp. 76, 77)

States	1914 (April 30)	1914 (Dec. 31)	1915 (Dec. 31)	1916 (Dec. 31)	1917 (Dec. 31)
MALE					
New South Wales	49.4	49.4	49.3	48.5	48.4
Victoria	48.8	48.7	48.5	48.2	48.1
Queensland	48.8	48.6	48.6	48.3	47.2
South Australia	48.6	48.6	48.5	48.1	47.8
Western Australia	47.8	48.2	48.1	48.1	48.1
Tasmania	48.6	48.6	48.6	48.6	48.5
Commonwealth	48.9	48.9	48.8	48.3	48.1
FEMALE					
New South Wales	49.3	49.3	49.5	49.4	49.0
Victoria	48.5	48.5	48.5	48.4	48.3
Queensland	49.3	49.8	49.8	49.9	49.0
South Australia	49.3	49.3	49.4	49.0	48.7
Western Australia	48.7	49.4	49.9	49.1	48.8
Tasmania	50.8	50.8	50.1	49.8	49.8
Commonwealth	49.1	49.1	49.1	49.0	48.7

TABLE 4. WEIGHTED AVERAGE NOMINAL WEEKLY FULL-TIME HOURS OF LABOR FOR DIFFERENT INDUSTRY GROUPS IN THE SIX AUSTRALIAN CAPITAL CITIES, DECEMBER 31, 1917

(Source: Commonwealth Bureau of Census and Statistics, Labor and Industrial Branch; Report No. 8, 1918; pp. 76–77)

Industry group	Nominal weekly full-time hours of labor in—						
	Sydney, N.S.W.	Melbourne, Victoria	Brisbane, Queensland	Adelaide, South Australia	Perth, Western Australia	Hobart, Tasmania	Average, six cities
MALES							
Wood, furniture, etc.	48.0	48.1	46.2	47.9	48.0	48.0	47.8
Engineering, metal works	48.0	48.0	45.7	48.0	48.0	48.0	47.8
Food, drinks, etc.	48.6	48.5	47.7	48.4	49.9	49.3	48.5
Clothing, boots, etc.	47.8	48.0	47.3	48.0	48.0	48.0	47.9
Book etc., printing	46.7	45.9	45.3	47.6	45.6	46.0	46.3
Other manufacturing	48.0	48.1	46.9	48.1	48.1	48.2	48.0
Building	47.3	44.3	44.0	45.2	47.9	47.3	45.8
Mining	45.2	44.9	43.0	44.4	47.5	47.2	45.3
Railroad and street car transportation	48.3	48.2	48.3	48.5	48.5	49.8	48.4
Other land transportation	54.9	51.6	50.9	49.5	48.0	51.9	52.5
Domestic service, hotels, etc.	56.6	56.9	56.0	54.7	55.5	58.0	56.4
Miscellaneous	48.6	48.6	48.3	47.8	47.0	48.3	48.4
All industries combined	48.4	48.1	47.2	47.8	48.1	48.5	48.1
FEMALES							
Food, drink, etc.	48.0	48.0	48.0	48.0	48.0	48.0	48.0
Clothing, boots, etc.	47.8	48.0	47.6	48.0	48.0	46.5	47.9
All other manufacturing	47.2	47.9	47.4	47.5	..	48.0	47.6
Domestic service, hotels, etc.	51.0	50.5	52.5	50.7	49.6	58.0	51.1
Offices and stores	50.3	48.0	48.0	49.0	..	..	49.0
All industries combined	49.0	48.3	49.0	48.7	48.8	49.8	48.7

South Africa

The South African Economic Commission which reported early in 1914 gives no figures for hours of labor in South Africa, but contents itself with the statement that great variety exists in that respect; some very long hours prevail, "far longer than should be necessary in South Africa to find employment for the people at satisfactory wages."[17]

[17] *Report of the Economic Commission*, Jan., 1914; Pretoria, 1914; pp. 62, 63.

CONTINENTAL EUROPEAN COUNTRIES

Austria

Trade agreement data as reported through the official labor journal of Austria furnish about the only measurably satisfactory statistics as respects prevailing hours of labor. Obviously such data show the situation as relatively favorable, organized workers being presumably better off than the wholly unorganized. Outside of roofers and plasterers in the building trades there are no 8-hour trades in Austria. Only a few are 9-hour trades, e.g., woodworking, upholstering, bookbinders, masons and helpers, building laborers, carpenters, painters and decorators. The 10-hour trades are stone, pottery and glass and clothing (more nearly 11 hours). The iron and steel and allied industries work on a nominal 57 to 58-hour week.

Two tables follow (Tables 5 and 6) covering the latest available material as respects trade union hours of labor in Austria.

TABLE 5. HOURS OF LABOR IN AUSTRIA FIXED BY COLLECTIVE AGREEMENTS, 1913

(Source: *Soziale Rundschau hrsg. vom K. K. Arbeitsstatistischen Amt im Handelsministerium;* Vienna, May–June, 1915; p. 115)

Daily hours of labor	Establishments		Employes	
	Number	Per cent	Number	Per cent
8 hours	156	2.0	406	0.3
Over 8 hours and under 9	317	4.0	2,209	1.7
9 hours	3,978	49.6	58,405	45.2
Over 9 hours and under 10	1,840	23.0	46,295	35.9
10 hours	675	8.4	17,617	13.6
Over 10 hours	1,054	13.0	4,248	3.3
Total	8,020	100.0	129,180	100.0

TABLE 6. NORMAL HOURS OF LABOR PER DAY IN AUSTRIA, AS FIXED BY COLLECTIVE AGREEMENTS, 1913, BY INDUSTRY GROUPS

(Source: *Soziale Rundschau;* Vienna, May, June, 1916; pp. 122, 123)

Industry groups	Less than 9 hours	9 to 9¼ hours	9½ to 9¾ hours	10 hours	Over 10 hours
Stone, pottery and glass	..	1,032	554	8,283	45
Iron and steel and allied	38	6,791	23,761	1,984	71
Woodworking	125	10,341	513	259	54
Leather	..	80	460	210	..
Textiles (weavers, principally)	..	..	720	466	..
Upholstering	..	915	..	..	..
Clothing	..	444	415	787	1,973
Paper and paper goods	..	..	118	..	..
Bookbinders	122	2,635	89	9	..
Food and food products:	..	..	..	..	..
Bakers	..	75	..	344	131
Others	..	1,001	174	1,105	621
Chemical	..	8	154	600	..
Building trades:					
Masons and helpers	..	12,875	12,524	2,531	..
Masons and carpenters	..	..	2,460	..	..
Building laborers	..	15,250	520	..	..
Plasterers and stucco workers	500	..	56	..	..
Carpenters	..	2,361	1,688	874	..
Fixture men	..	626	..	..	..
Roofers	1,400	..	..	..	..
Glazers	..	400	..	..	..
Painters and decorators	..	5,467	20	94	..
Other	300	9	..	..	..
Commerce, transportation	55	88	76	71	1,353
Miscellaneous	75	..	..	..	..
Total	2,615	60,398	44,302	17,617	4,248

Germany

As noted below, the German Provisional Government has enacted a general 8-hour law. At present, however, and during the war the prevailing hours of labor ranged from 9 to 10 hours per day. According to collective agreements in force on December 31, 1914, about nine-tenths of the organized workers affected (1,254,855) worked 8½ to 10 hours per day. The details are contained in the statement below:

TABLE 7. DAILY HOURS OF LABOR DURING SUMMER AND WINTER STIPULATED IN COLLECTIVE AGREEMENTS IN FORCE DECEMBER 31, 1914

(Source: *Statistisches Jahrbuch für das Deutsche Reich*, 1916; Berlin, 1916; p. 22.) From *Monthly Review of the U. S. Bureau of Labor Statistics*, Washington, January, 1917, p. 144

Daily hours of labor	Collective agreements		Establishments affected		Workers affected	
	Number	Per cent	Number	Per cent	Number	Per cent
Summer:						
Less than 8 hours	28	0.3	651	0.5	4,838	0.4
8 hours	262	2.8	2,567	1.9	38,420	3.1
Over 8 to 8½ hours	152	1.6	4,148	3.1	40,605	3.2
Over 8½ to 9 hours	1,581	16.9	48,546	36.7	388,544	31.0
Over 9 to 9½ hours	2,217	23.8	27,455	20.8	268,567	21.4
Over 9½ to 10 hours	4,001	42.8	38,546	29.2	468,373	37.3
Over 10 to 10½ hours	372	4.0	1,361	1.0	15,119	1.2
Over 10½ to 11 hours	347	3.7	3,665	2.8	14,229	1.1
Over 11 hours	384	4.1	5,321	4.0	16,160	1.3
Total	9,344	100.0	132,260	100.0	1,254,855	100.0
Winter:						
Less than 8 hours	1,020	12.0	33,920	27.0	381,458	32.3
8 hours	634	7.5	6,168	4.9	89,258	7.5
Over 8 to 8½ hours	157	1.8	3,863	3.1	37,486	3.2
Over 8½ to 9 hours	1,441	17.0	36,254	28.8	293,991	24.9
Over 9 to 9½ hours	1,933	22.8	15,429	12.3	157,957	13.4
Over 9½ to 10 hours	2,405	28.3	20,780	16.5	186,903	15.8
Over 10 to 10½ hours	270	3.2	971	.8	8,011	.7
Over 10½ to 11 hours	287	3.4	3,467	2.8	12,400	1.0
Over 11 hours	338	4.0	4,799	3.8	14,144	1.2
Total	8,485	100.0	125,651	100.0	1,181,608	100.0

Slight changes in hours occurred during the war. Among those industries in which decreases took place between March, 1914, and September, 1917, were the chocolate and confectionery industries with a 2 hours reduction per day; clothing and lingerie, 1 hour and 17 minutes; hemp, twine and linen mills, 40 minutes; shoe industry, 41 minutes; trimming factories, 38 minutes; woolen, 30 minutes; and the paper industry, 18 minutes. Some increases in hours have occurred: cigar factories, 48 minutes per day; iron and steel and allied industries, 28 minutes; milling industry, 26 minutes; woodworking, 19 minutes and stone quarries, 15 minutes per day.

As reported in September, 1917,[18] the prevailing hours in the chocolate and confectionery industry were 7½ per day; clothing and lingerie, 7¾ to 8 hours; precious metal manufacturing, 8½ hours; boot and shoe manufacturing, 8¾ hours; and trimmings,

[18] *Reichsarbeitsblatt*, Berlin, April, 1918. (From *Monthly Labor Review of the U. S. Bureau of Labor Statistics*, Washington, October, 1918; p. 176.)

8½ to 9 hours. The daily hours exceeded 10 in the paper industry (10½ hours) and in the milling industry over 11 hours. The daily hours were in stone quarrying 10 hours; hemp and twine mills, $9\frac{1}{20}$ hours; knitting and weaving mills, 9⅓ hours; trimming factories, $9\frac{1}{5}$ hours; clothing and lingerie, $8\frac{1}{30}$ hours.

Italy

The underground miners of Italy work predominantly on an 8-hour day. Surface miners, however, work 9 and 10 hours. The data are reported for 1912 but the less complete figures for 1915 show no changes.

TABLE 8. NUMBER AND PER CENT OF SURFACE AND UNDERGROUND WORKERS WORKING SPECIFIED HOURS PER DAY

(Source: *Annuario statistico italiano, Anno* 1913; Rome [1914]; pp. 266, 267)

Hours per day	Underground workers		Surface workers		All workers combined	
	Number	Per cent	Number	Per cent	Number	Per cent
8 hours	13,954	93.1	..	..	13,954	49.9
9 hours	1,038	6.9	3,643	28.1	4,681	16.7
10 hours	..	..	8,777	67.8	8,777	31.4
Over 10 hours	..	..	535	4.1	535	1.9
Total	14,992	100.0	12,955	100.0	27,947	100.0

Marble quarry workers have extremely short hours of work, ranging from 6½ to 8 per day as reported for 6,960 workers in the district of Carrara in 1915.[19]

Data for some of the principal industries of Italy show a prevailing day of 10 hours and over.[20] Among these are included the iron and steel industry and the chemical industry. The textile industry shows 10½ to 11 hours per day[21]; the tobacco industry, 8 hours, which is an increase from 7 hours prevailing generally up to 1912.

In September, 1918, the trade union federation of Italy initiated

[19] *Annuario statistico italiano*, 1915. Rome [1917], p. 258.

[20] *Idem.*, p. 259 et seq.

[21] *Idem.*, 1913. Rome [1914], p 270 et seq.

a concerted movement for the 8-hour day. On February 20, the iron and steel and machine trades obtained by agreement with the manufacturers the 48-hour week. The change is not to be effective until July 1 for workers in continuous processes so as to allow time for adjustment in passing from a 2-shift to a 3-shift system; for other workers the change is effective May 1.

In machine shops, shipbuilding and allied trades the hours are reduced from 60 or 55 to 48 per week. In foundries the change is from a 72-hour to a 48-hour week. It is expected to maintain production with the same number of employes on the 3-shift arrangement as on the 2-shift one. No change in earnings is to take place. The agreement affects approximately 500,000 workers.[22]

In the printing trade and the woolen branch of the textile industry the workers have concluded agreements for a 48-hour week, effective in the former trade since March 17. Joint boards of employers and employes will make the necessary arrangements for the changes in such a way as to prevent reduction in output and to maintain competition with foreign countries.[23]

In no instances do the changes contemplated mean any reduction in wages.

Netherlands

The effect of war-time conditions in the Netherlands has been to reduce the normal hours of labor. The mobilization of the military forces and the putting of the country on a war basis restricted some industries and caused others to expand. In the industries curtailed shortening hours and short time were methods of preventing too great unemployment. The increasing demands of the trade unions backed up by a greatly enlarged membership is at present a factor in the movement for shorter hours. The 8-hour day is the first demand of the organized workers of the Netherlands.

Underground miners now work 8 hours a day, while surface men are still on the 10-hour day. Government mines, however, adopted the 8-hour day for surface workers on April 1.[24] Under

[22] The *Labor Gazette*, prepared and edited at the offices of the Ministry of Labor; London, 1919 (March); p. 86.

[23] *Idem.*, p. 87.

[24] *Idem.*, p. 86.

ground men worked 8½ hours in 1914, and surface men 12 hours per day.[25]

State and municipal workers in the Netherlands work on the average 10 hours per day.[26] A shorter Saturday is worked so that the weekly hours probably do not exceed 57 hours. However, as late as 1914, thirty-four municipalities out of fifty-eight fixed the maximum daily hours of work on public contracts at 11, five at 10½ and sixteen at 10 hours. Three cities fixed the maximum at 12 hours per day.[25]

No recent data are at hand showing the hours worked in the principal manufacturing industries of the Netherlands. Ordinarily they are published in the official factory inspection reports, but since 1913 considerations of expense and labor have made omission of these data advisable. Figures for 1913, however, may serve as a convenient base for judging the effect of war-time changes, and to show normal conditions.

In 1913 one-fourth of the adult male workers in Dutch factories not subject to regulation by law worked prevailingly 10 hours per day, and over one-half worked over 10 hours a day; about one-tenth worked over 12 hours, while a trifle over an equal proportion worked 9 hours and less per day. Slightly less than one-fifth worked less than 10 hours per day. No important changes in hours have occurred between 1910 and 1913.

Women and children appear to work on the whole about the same number of hours per day. A week's work, however, generally does not exceed 58.

The hours as reported, it should be observed, are those worked by a majority of the employes in any establishment. The ordinary practice of the factory is considered, and the fact that some employes work a greater or smaller number of hours per day is not taken into account. The figures are for the hours prevailing in the summer time, and hence, perhaps, tend slightly to exaggerate the length of the average yearly working day. No account is taken of the fact that a shorter Saturday is worked in some fac-

[25] *Jaarcijfers voor het Koninkrijk der Nederlanden, Rijk in Europa,* 1914; The Hague, 1916; p. 101.

[26] *Maandschrift van het Centraal Bureau voor de Statistiek;* The Hague, 1918 (August), No. 8; pp. 886, 887.

tories. This, however, will not tend to reduce the weekly hours more than 3 or 4 hours for the week.

The prevailing hours of labor for 441,120 employes in all classes of factories in the Netherlands in 1913 are summarized in the table following. The normal workday for wage-earners of both sexes is 10 hours, although over two-fifths work over 10 hours per day.

TABLE 9. PREVAILING HOURS OF LABOR IN SUMMER IN FACTORIES AND WORKSHOPS OF THE NETHERLANDS EMPLOYING 10 OR MORE PERSONS, 1913

(Source: *Centraal Verslag der Arbeidsinspectie over 1913;* p. 311)

	Number of establishments	Number of wage-earners	Per cent of wage-earners
9 hours	4,940	43,822	9.93
9½ "	5,826	58,237	13.20
10 "	9,382	154,274	34.98
10½ "	2,900	67,509	15.31
11 "	4,912	59,131	13.41
11½ "	2,158	20,181	4.57
12 "	3,780	22,167	5.02
Over 12 hours	4,148	15,799	3.59
Total	38,046	441,120	100.00

The next table shows the distribution of all wage-earners according to prevailing hours of work per day and by industry groups.

TABLE 10. PREVAILING DAILY HOURS OF LABOR IN THE MANUFACTURING INDUSTRIES OF THE NETHERLANDS, 1913

(Source: *Jaarcijfers voor het Koninkrijk der Nederlanden, Rijk in Europa*, 1914. The Hague, 1916, pp. 92, 93

Industry group	Number working specified hours									Per cent working specified hours		
	9 hours	9½ hours	10 hours	10½ hours	11 hours	11½ hours	12 hours	Over 12 hours	Total	10 hours or less	Over 10 and up to and including 11 hours	Over 11 hours
Stone, pottery and glass	674	4,391	18,173	3,368	6,282	1,604	2,643	867	38,002	61.2	25.4	13.5
Diamond cutting, etc.	9,005	136	56	..	16	..	..	..	9,213	99.8	.2	..
Printing, lithographing, etc.	2,829	8,601	5,194	875	236	42	19	110	17,906	92.9	6.2	.9
Building and construction	914	887	2,053	1,346	2,617	905	414	258	9,394	41.0	42.2	16.8
Chemicals	1,278	1,971	3,670	1,915	1,509	197	819	77	11,436	60.5	29.9	9.6
Wood, cork and straw manufacturing	798	1,965	11,538	4,463	5,104	2,155	1,836	982	28,841	49.6	33.2	17.2
Clothing and cleaning	10,318	10,334	11,391	1,775	927	450	524	389	36,108	88.7	7.5	3.8
Art industries	41	255	244	53	63	51	22	8	737	73.3	15.7	11.0
Leather, rubber, etc.	89	1,151	3,586	2,011	1,669	429	237	129	9,301	51.9	39.6	8.5
Mining[1]	48	33	447	167	206	51	64	13	1,029	51.3	36.3	12.4
Metal industries	903	2,535	10,702	6,127	4,227	1,862	969	352	27,677	51.1	37.4	11.5
Machinery and tool manufacturing	1,586	7,480	11,149	5,707	4,781	3,602	634	502	25,441	57.0	29.6	13.4
Shipbuilding	653	957	10,530	4,475	5,365	1,150	1,851	1,630	26,611	45.6	37.0	17.4
Paper	353	1,977	4,217	2,220	503	300	423	31	10,026	65.3	27.2	7.5
Textiles:												
Flax breaking	1,155	951	1,143	209	32	8	41	..	3,539	91.8	6.8	1.4
Other textiles	1,702	2,060	20,310	21,335	8,047	2,105	1,422	493	57,474	41.9	51.1	7.0
Manufacture of gas and electricity	2,404	1,126	3,157	606	433	75	149	27	7,977	83.8	13.0	3.1
Food and food products:												
Bakeries	2,984	2,811	4,191	1,355	3,481	1,643	4,954	6,349	27,771	36.0	17.4	46.6
Flour and grist mills	258	201	1,480	621	1,297	560	1,199	471	6,087	31.9	31.5	36.7
Creameries, etc.	1,158	627	2,279	1,149	1,139	811	1,283	858	9,304	43.7	24.6	30.7
Tobacco and cigars	1,921	3,624	10,076	4,231	1,326	786	369	111	22,444	69.6	24.8	5.6
Other	2,751	4,164	18,688	3,501	9,871	1,395	2,295	2,137	44,802	57.1	30.0	13.0
Total	43,822	58,237	154,274	67,509	59,131	20,181	22,167	15,799	441,120	58.1	28.7	13.2

[1] Does not include coal mining.

Some of the more recent changes which modify the information given in the above table should be noted. The extension of the Saturday half holiday has occurred in Amsterdam in the building trades and in diamond cutting, the latter being one of the important industries in the Netherlands. The diamond cutting trade is now practically an 8-hour trade. Amsterdam and other cities are adopting the 8-hour day generally, as are also various factories throughout the country. The movement for the shorter workday is in fact general throughout the Netherlands.[27]

[27] *Monthly Labor Review of the U. S. Bureau of Labor Statistics*, Washington, April, 1919; p. 184.

Scandinavian Countries

These are countries of the 9½ and 10-hour day even among organized workers. Labor, it may be observed, too, is very well organized in these countries, particularly in Denmark, which in degree of organization ranks next to Australasia and Great Britain.

In Denmark the organized workers recently demanded the 8-hour day by law,[28] and showed in connection with that demand that of about 255,000 organized workers in the country 60,000 or 23.5 per cent worked 9 hours or less per day; 157,000 or 61.6 per cent worked 9½ to 10 hours, and 38,000 or 14.9 per cent worked over 10 hours. This agrees roughly with more detailed figures secured by the government statistical bureau in connection with an analysis of collective agreements published annually. The data in question are set forth by industrial groups in the table following:

[28] *Meddelelsesblad utgit av Arbeidernes faglige landsorganisation i Norge;* Christiania, 1918. No. 12, p. 206. (Organ of the Norwegian Federation of Labor.)

TABLE 11. HOURS OF LABOR IN THE PRINCIPAL INDUSTRIES OF DENMARK ACCORDING TO TRADE AGREEMENTS IN FORCE IN 1915

(Source: *Statistisk Aarbog*, 1917; Copenhagen, 1917; p. 159)

NUMBER

Industry groups	Number of wage earners	Number for whom hours reported	Number working specified hours per week						
			8 hours and under	8½ hours	9 hours	9½ hours	10 hours	Over 10 and less than 12 hours	12 hours and over
Food and food products	20,710	19,913	289	66	6,045	5,721	7,038	707	47
Textiles	4,980	4,869	..	..	33	4,488	302	46	..
Clothing and cleaning	11,526	8,661	5	150	2,284	2,525	2,877	20	800
Construction and furniture	26,721	25,435	8	..	2,188	10,013	13,066	152	8
Woodworking	3,420	3,241	..	30	212	2,958	41	..	..
Hides and leather products	546	546	..	..	106	371	53	..	16
Stone, pottery, glass, etc.	7,678	4,791	50	..	675	1,930	2,083	39	14
Metal industries	17,789	17,003	..	..	266	15,785	944	8	..
Chemical and electro-chemical	3,541	3,346	781	..	..	452	2,049	14	50
Paper and wood pulp	1,094	1,089	..	..	..	..	1,083	6	..
Printing and publishing	5,893	5,761	2,493	388	1,588	1,292	..	..	..
Commerce, transportation, etc.	17,040	14,842	457	80	802	1,399	10,621	553	930
All industries combined	120,938	109,497	4,083	714	14,199	46,934	40,157	1,545	1,865

PER CENT

Food and food products	..	100.0	1.5	0.3	30.4	28.7	35.3	3.6	0.2
Textiles	..	100.0	..	..	.7	93.2	6.2	.9	..
Clothing and cleaning	..	100.0	*	1.7	26.3	29.2	33.2	.3	9.2
Construction and furniture	..	100.0	*	..	8.6	39.4	51.4	.6	*
Woodworking	..	100.0	..	.9	6.5	91.3	1.3	..	..
Hides and leather products	..	100.0	..	..	19.4	67.9	9.7	..	2.9
Stone, pottery, and glass	..	100.0	1.0	..	14.1	40.3	43.5	.8	.3
Metal industries	..	100.0	..	..	1.6	92.8	5.6	*	..
Chemical and electro-chemical	..	100.0	23.3	..	..	13.5	61.2	.4	1.5
Paper and wood pulp	..	100.0	..	..	..	..	99.4	.6	..
Printing and publishing	..	100.0	43.3	6.7	27.6	22.4	..	..	..
Commerce, transportation, etc.	..	100.0	3.1	.5	5.4	9.4	71.6	3.7	6.3
All industries combined	..	100.0	3.7	.7	13.0	42.7	36.7	1.4	1.7

* Less than $\frac{1}{10}$ of one per cent.

The average hours per week of organized workers in Norway are 52.5. This is based upon information covering 111,213 trade union workers. About one-fifth (19.2 per cent) worked 48 hours and under; nearly one-seventh (13.2 per cent) worked over 48 and under 54 hours; and approximately two-thirds (65.2 per cent) worked 54 hours per week. The remainder (2.4 per cent) worked over 54 hours. The table following (Table 12) shows

the number of workers (111,213) classified by industry group and nominal full-time hours per week.

TABLE 12. NUMBER OF WORKERS HAVING SPECIFIED NOMINAL FULL-TIME HOURS OF WORK PER WEEK IN NORWAY, NOVEMBER, 1918

(Source: *Meddelelsesblad utgit av Arbeidernes faglige landsorganisation i Norge;* Christiania, 1918, No. 12; pp. 204, 205.

	Under 48 hours	48 hours	Over 48 and under 54 hours	54 hours	Over 54 and under 60 hours	60 hours	Total	Average hours per wk.
1. Construction work	..	3,207	405	859	..	..	4,471	49.4
2. Bakers and confectioners	..	1,775	..	125	..	..	1,900	48.4
3. Barbering and manicuring, etc.	..	..	..	53	275	..	328	54.6
4. Mining	..	3,600	..	2,400	..	..	6,000	50.4
5. Tinsmiths	..	65	87	284	..	..	436	52.6
6. Bookbinding	..	4	1,706	..	..	..	1,710	51.0
7. Book printing and lithography	275	1,035	2,650	..	..	..	3,960	49.7
8. Breweries and distilleries	..	..	..	671	..	..	671	54.0
9. Electro-plating and chemical plants	..	..	210	7,544	..	..	7,754	54.0
10. Match factories	..	1,010	..	..	..	..	1,010	48.0
11. Glass, stone, and terra cotta	..	425	241	2,989	..	..	3,655	53.3
12. Goldsmiths	..	814	..	..	..	..	814	48.0
13. Canning and preserving	..	..	..	2,252	..	..	2,252	54.0
14. Municipal work	7	4,066	460	54	..	..	4,587	48.4
15. Painters	..	19	240	1,780	..	..	2,039	53.6
16. Foundries and machine shops	..	145	116	22,563	..	..	22,824	53.9
17. Masons	7	196	446	1,031	55	..	1,735	52.7
18. Mason laborers	..	17	234	678	23	..	952	53.4
19. Furniture mfg.	..	240	355	1,138	53	..	1,795	52.7
20. Flour and grist-mills	..	19	..	75	..	..	94	52.8
21. Sewer and water pipe laying	..	..	14	565	..	..	579	53.9
22. Saw and planing mills; box mfg.	..	150	58	4,015	..	..	4,223	53.8
23. Shipping; seamen and firemen	..	..	..	50	..	..	50	54.0
24. Hides and leather	..	100	63	358	..	..	521	52.5
25. Lumbering	..	110	25	595	..	..	730	53.1
26. Boots and shoes	..	110	460	2,630	..	..	3,200	53.4
27. Tailors	..	..	170	654	1,243	14	2,081	55.6
28. Slaughtering and packing	..	40	386	97	..	..	532	52.1
29. Blacksmiths	..	..	..	260	..	..	260	54.0
30. Creameries	..	20	234	636	..	..	890	52.8
31. Carpenters and joiners	..	284	583	3,161	140	..	4,168	53.4
32. Stone cutting	..	..	..	711	..	..	711	54.0
33. Textiles	..	..	352	2,707	..	..	3,059	53.9
34. Cigars and tobacco	..	740	890	..	..	..	1,630	49.1
35. Transportation	..	40	413	3,827	508	..	4,788	54.0
36. Paper and wood pulp	..	2,774	3,439	5,480	400	..	12,093	51.8
37. Woodworking	..	..	359	642	..	..	1,001	53.4
38. Miscellaneous, not specified	..	45	57	1,608	..	..	1,710	52.8
Total	289	21,068	14,653	72,492	2,697	14	111,213	52.5

Sweden may be classed as a 10-hour country; at the same time the war period has chronicled several departures from the general rule. The government itself under labor pressure made changes in hours upon its public works. By order of April 11, 1918, the government reduced the hours of labor upon its telegraph and railroad lines and water power works to 52 per week, 9 hours for the first 5 days of the week and 7 hours on Saturday. The order

took effect May 1, 1918.[29] The number affected is not stated, but must be considerable as the industries are among the more important ones in the country. Hours similar to the above were found to prevail in government arsenals and machine shops, as the result of an investigation in August, 1918.[30] Inasmuch as an 8-hour law has been enacted in Sweden to apply to all government works, conditions have been somewhat changed from those here noted.

According to consular reports, the building industry in Sweden has changed from a 57 to a 51-hour week.[31] The change includes more particularly bricklayers, plasterers, carpenters, laborers, pile drivers, plasterers' laborers, general laborers, and cement and concrete workers.

As set forth in the official reports and collective agreements which covered 98.6 per cent of all employes under collective agreements the number and per cent of persons working specified hours per week in 1916 are shown in the two tables, following (Tables 13 and 14):

TABLE 13. NUMBER AND PER CENT OF PERSONS IN SWEDEN UNDER COLLECTIVE AGREEMENTS WORKING SPECIFIED HOURS PER WEEK, 1916

(Source: *Sociala Meddelanden utgivna av K. Socialstyrelsen;* Stockholm, 1918, No. 12; p. 1471)

Hours per week	Workers	
	Number	Per Cent
48 and less	4,662	4.0
49–53 hours	3,635	3.1
54 hours	11,468	9.9
55–56 hours	4,614	4.0
57 hours	27,681	23.9
58 hours	4,113	3.6
59 hours	7,543	6.5
60 hours	49,774	43.0
Over 60 hours	2,251	2.0
Total	115,741	100.0

[29] *Sociala Meddelanden utgivna av K. Socialstyrelsen;* Stockholm, 1918. No. 5; p. 622.

[30] *Idem.* No. 10, pp. 1087, 1088.

[31] *Monthly Review of the U. S. Bureau of Labor Statistics,* Washington, March, 1919; p. 194.

TABLE 14. HOURS OF LABOR (NOT INCLUDING REST PERIODS) AS FIXED BY COLLECTIVE AGREEMENTS IN SWEDEN, 1916, BY OCCUPATIONS

(Source: *Kollektivavtal i Sverige år 1916 av K. Socialstyrelsen;* Stockholm, 1918; pp. 12–15)

	Number of collective agreements	Number of employes affected	Number of employes for whom hours reported	Number of employes whose specified hours per week are—							
				48 hours and under	49 to 53 hours	54 hours	55 to 56 hours	57 hours	58 to 59 hours	60 hours	Over 60 hours
I. Mining and metals:											
Mining	17	3,279	3297	3,297	..	..	..	..	..	..	..
Iron and steel works	3	131	131	..	..	..	..	73	58	..	..
Iron and steel products	15	246	246	..	..	..	209	37	..	..	..
Tinsmithing	137	499	499	..	..	..	178	298	23	..	..
Machine shops	122	3,618	3,618	..	..	397	199	3022	..	..	..
Implements and tools	1	249	249	..	249	..	..	..	..	..	..
Other	24	140	140	..	..	..	140	..	..	..	..
II. Stone, glass and pottery:											
Stone cutting	39	357	357	..	..	..	..	281	54	22	..
Glass manufacturing	20	2,060	2,060	1,285	..	..	..	671	104	..	..
Chinaware	1	205	205	..	..	..	..	205	..	..	..
Other	3	129	129	..	..	..	..	50	64	15	..
III. Lumber and woodworking:											
Timber floating	4	1,205	1,055	..	..	..	..	..	355	700	..
Saw and planing mills	32	5,430	5,335	..	..	..	289	1,260	3,786	..	..
Lumber yards	8	587	587	..	18	..	54	110	405	..	..
Carpenter and cabinet shops	96	2,152	2,152	..	..	44	1,101	985	22	..	..
Coopers	5	110	110	..	..	..	..	..	110	..	..
Cork cutting	6	352	352	..	129	223	..	..	..	..	..
Other	11	90	90	..	..	..	22	61	..	7	..
IV. Paper and related trades:											
Paper and wood pulp	26	6,364	6,364	..	..	..	..	135	3,321	2,057	851
Bookbinding	57	1,863	1,863	..	..	1,863	..	..	..	..	..
V. Food products:											
Flour and grist mills	5	269	269	..	..	..	..	138	65	66	..
Bakeries and confectionaries	563	2,920	2,905	33	..	41	107	145	2,442	66	71
Sugar refining	24	7,482	7,482	..	..	..	..	..	..	7,482	..
Breweries	22	1,800	1,521	..	..	..	..	..	20	1,501	..
Tobacco factories	1	482	482	..	..	..	..	482	..	..	..
Oleomargarine factories	3	261	261	..	..	..	24	157	80	..	..
Slaughtering and meat packing	64	356	356	..	..	..	10	220	78	48	..
Other	4	94	94	..	..	..	..	21	35	38	..
VI. Textiles and clothing:											
Spinning and weaving	108	23,000	23,000	..	..	..	..	..	..	23,000	..
Tailoring	371	2,447	2,427	..	..	..	..	21	..	2,406	..
Other	3	198	46	..	..	..	..	46	..	..	..
VII. Leather and related trades:											
Boot and shoe manufacturing	38	6,320	6,320	..	..	6,320	..	..	..	..	..
Shoe repair shops, etc.	146	365	201	..	..	21	..	150	30	..	..
Saddlery and upholstery	205	578	568	..	203	171	171	13	10	..	..
Other	1	14	14	..	..	..	..	14	..	..	..
VIII. Chemical industry:											
Fertiliser factories	4	337	337	..	..	..	..	242	..	90	5
Charcoal burnings	1	200	200	..	..	..	..	..	200	..	..
Tannic acid works	1	125	125	..	..	..	..	125	..	..	..
Explosives	3	376	376	..	..	..	286	..	..	90	..
Carbide manufacturing	1	180	180	..	..	..	..	180	..	..	..
Match manufacturing	6	2,088	2,088	..	..	..	440	1,648	..	..	..
Other	3	90	90	..	..	..	..	90	..	..	..
IX. Building trades:											
Masons, Woodworkers, Building laborers	707	2,598 6,349 5,563	2,598 6,349 5,563	..	..	..	183 355 537	2,415 5,994 5,026	..	..	..
Painters	873	5,034	5,034	..	3,036	163	230	1,576	29	..	..
Glaziers	57	200	200	..	..	..	..	200	..	..	..
Plumbers	24	1,165	1,165	..	..	740	..	425	..	..	..
Electricians	9	461	461	..	..	..	..	461	..	..	..
Road and water power work	6	321	291	..	..	..	..	271	20	..	..
Other	29	119	119	..	..	10	..	90	..	19	..
X. Municipal and public works	10	239	239	..	..	..	..	65	..	174	..
XI. Office and store clerks:	16	234	234	..	..	..	79	18	25	112	..
XII. Transportation:											
Teaming and hauling	99	1,427	1,427	..	..	..	..	150	..	30	1,247
Loading and unloading	13	1,062	1,062	..	..	300	..	110	320	332	..
Street railways	2	1,247	1,247	..	..	1,145	..	..	..	102	..
Railroading	106	11,417	11,417	..	..	..	..	..	..	11,417	..
XII. Others not specified	47	510	154	47	..	30	..	..	..	..	77
Total	4,202	117,012	115,741	4,662	3,635	11,468	4,614	27,681	1,656	49,774	2,251

Argentine Republic

The city of Buenos Aires is rather remarkable as respects the short hours enjoyed by the workers in its industries. The government statistical office reports the average daily hours of labor as less than 9, i.e., 8 hours and 56 minutes; the maximum is reported as 9 hours and 50 minutes prevailing among employes in commercial houses, stores, etc., the minimum as 8 hours and 11 minutes in printing and publishing. These facts are based on data concerning 312,997 employes for the year 1916.

The proportion working specified hours per day in 1914 were as follows:

8 hours	46.6 per cent
8½ "	27.1 " "
9 "	19.1 " "
9½ "	6.6 " "
10 "	0.6 " "
Total,	100.0 " "

Comparative data for the years 1914, 1915 and 1916 for the different industry groups show the following average hours of work in each:

TABLE 15. AVERAGE DAILY HOURS OF LABOR IN THE DIFFERENT INDUSTRY GROUPS OF BUENOS AIRES, 1914–1916

(Source: Argentine Republic; *Boletin del Departamento del Trabajo*, January, 1918; pp. 17, 18, 85)

Industry group	1914		1915		1916	
	Hours	Minutes	Hours	Minutes	Hours	Minutes
Food and food products	9	16	9	28	9	16
Printing and publishing	8	25	8	29	8	11
Transportation	9	5	8	50	8	53
Commerce and trading	9	40	9	41	9	50
Construction, building, etc.	8	29	8	47	8	37
Iron and steel, etc.	8	31	8	35	8	37
Woodworking	8	32	8	34	8	43
Clothing	8	40	8	52	8	50
Hides and leather	8	35	8	33	8	33
Miscellaneous	9	1	9	5	9	14
Total	8	42	8	58	8	56

LEGISLATION AFFECTING HOURS OF LABOR

Any attempt to present the situation as respects hours of labor as disclosed by the legislation of many countries of divergent economic conditions within the compass of a brief article must necessarily be somewhat sketchy. The following survey is by no means exhaustive but it is believed to be fairly comprehensive.

Regulation of the hours of labor by law has affected three groups of workers in the historical order named: (1) women and children; (2) adult males in dangerous and unhealthful occupations, and (3) all workers regardless of age and sex or the nature of the employment. The first and second class of laws have followed the industrial revolution as it has occurred in different countries, although those of the second class applying to adult male workers have lagged somewhat behind those applying to women and children. Hours of labor laws affecting all groups of workers and kinds of occupations are very recent. They have been accepted in Europe as fast as the antagonism of business interests to them could be overcome, while in the United States such laws have met not only opposition from employers, but also constitutional objections. This latter, however, has been definitely settled by the Supreme Court at least as far as fixing a 10-hour day is concerned.[32] The reasonableness of an 8-hour day, however, has yet to be settled.

Laws Affecting Women and Children

The requirements of education and the health of the rising generation are the basis of these laws. The laws generally confine themselves to the employment of women and children in factories, stores and offices, but not necessarily to all employment, as for example, in agriculture, and in the very large class of family shops and stores. The hours of labor are controlled in two ways; first by the requirement of a minimum rest period at night and during the progress of the work in the daytime, and by a maximum length for the actual working day. The situation as respects hours of labor of children in industry in the various countries is as follows:[33]

[32] *Bunting* v. *Oregon*, 37 Sup. Ct., 435.

[33] Bauer, Stephen. *Arbeiterschutz und Völkergemeinschaft;* Zurich, 1918; pp. 58, 59. (Translation in *Bulletin No. 254 of the U. S. Bureau of Labor Statistics*, Washington: Labor Legislation and the Society of Nations.)

TABLE 16. AGE LIMIT FOR ADMISSION TO WORK, LEGAL PERIOD OF NIGHT REST, AND MAXIMUM HOURS OF LABOR, FOR YOUNG PERSONS IN SPECIFIED EUROPEAN COUNTRIES BEFORE THE OUTBREAK OF THE WAR

Country	Age limit (years)	Night rest (hours)	Maximum hours of labor
Denmark	18	10	10
France	18	8	10
Great Britain	18	12	10
Finland	18	10	12
Greece	18	11	10
Norway	18	11	[1]10
Serbia	18	9	[2]10
Sweden	18	11	10
Switzerland	18	11	10
Netherlands	17	11	10
Germany	16	11	10
Austria	16	9	11
Bosnia	16	9	11
Belgium	16	8	12
Luxemburg	16	8	10
Portugal	16	8	10
Russia	15	8	8
Italy	15	8	11
Bulgaria	15	9	8
Rumania	15	8	8

[1] 54 hours per week.
[2] In winter, 10 hours.

These standards are not absolute but are subject to exceptions under certain conditions, as for instance in case of accidents arising from act of Providence and where preservation of perishable products is necessary.

The prohibition of night work of adult women workers has been the subject of an international agreement (September, 1906) to which 14 countries are parties, namely: Austria, Belgium, Denmark, France, Germany, Great Britain, Hungary, Italy, Luxemburg, Netherlands, Portugal, Spain, Sweden and Switzerland. Under the agreement the maximum night rest of 11 hours is required. For most countries these standards had been established nationally previous to the international agreement, and amounted to little more than the acceptance of a symbol, or the making of an empty gesture. Other countries, however, subsequently registered their approval of the standards set up.

The results of the night work agreement are contained in the following tabular statement:[34]

TABLE 17. LEGAL NIGHT REST FOR WOMEN BEFORE AND AFTER THE ENFORCEMENT OF THE AGREEMENT

	Legal night rest for women	
	Before agreement	After agreement
German Empire	9 hours	11 hours
Austria	9 hours	11 hours
Hungary	No regulation	11 hours
Bosnia	No regulation	9 hours
Belgium	No regulation	11 hours
Denmark	No regulation	No regulation
Spain	No regulation	11 hours
France	8 hours	11 hours
Great Britain	12 hours	12 hours
Italy	8 hours, summer; 10 hours, winter	11 hours
Luxemburg	No regulation	11 hours
Portugal	No regulation	11 hours
Netherlands	10 hours	11 hours
Norway	No regulation	9 hours
Russia	8 hours (in textile factories)	8 hours
Finland	No regulation	No regulation (8-hour shift)
Sweden	No regulation	11 hours
Switzerland	9 hours, summer; 10 hours, winter	11 hours
Greece	No regulation	11 hours
Lichtenstein	No regulation	9 hours
Bulgaria	No regulation	9 hours, summer; 12 hours, winter
Serbia	No regulation	9 hours, summer; 10 hours, winter
Rumania	No regulation	No regulation

Certain colonies of the European powers observe the standards in question. Algiers, Tunis, Trinidad, Tobago, Ceylon, Gold Coast, North Nigeria, and Uganda have acceded to the convention. The 11-hour limit for the night rest is exceeded by Ontario, New South Wales, Western Australia, and New Zealand, the range being from 12 to 14 hours as a minimum.

[34] Bauer, Stephen. *Op. cit.*, p. 68.

The 10-hour working day for women as a maximum was in force before the war, in Germany, Norway, Switzerland, Greece, Portugal, England, France, Bulgaria and Serbia. It is 11 hours in Austria and Hungary, Bosnia, Lichtenstein, Spain (textile mills, 10 hours or 60 a week) and Rumania; 11½ hours in Russia; 12 in Italy and Finland; 10 hours in Sweden and Denmark up to age 18, and in Luxemburg up to age 16; 12 hours in Belgium to age 16.

Saturday work is limited in Great Britain, Germany, Netherlands, Switzerland, Norway and Serbia.

The weekly hours of work for women in factories as fixed by law in various European countries are as follows:

52½ hours	Great Britain (textile mills).
58 "	Netherlands, Serbia.
59 "	Switzerland.
60 "	Great Britain (non-textile factories); Spain (textile mills), France, Bulgaria, Greece, Portugal.
66 "	Austria, Bosnia, Hungary, Lichtenstein, Rumania, Spain (non-textile factories).
67½ "	Russia.
72 "	Belgium, Italy, Luxemburg.

In *Canada*, Quebec, Ontario, and New Brunswick have retained the 10-hour day for women. Manitoba and Nova Scotia have a 9-hour day, and British Columbia an 8-hour day. Saskatchewan has the shortest working week for women, namely 45 hours.

Argentina has introduced the 10-hour working day for Buenos Aires (in winter 8 hours) and Ecuador, Uruguay, Finland, Norway and Germany have an 8-hour day which applies to all occupations.

In Australia the 48-hour week prevails in the six states of the Federal Union; the working day can be at the most 10 hours in Victoria and in Western Australia 8¾ hours. The 45-hour week (or the 8¼ hour day) prevails in New Zealand.

In Africa the same regulation of working hours applies to women as to men. The 12-hour day is in force in Japan, as well as in the textile factories of the East Indies; it is 11 hours in other East Indian factories. An 9-hour day for women up to 18 years has been introduced in the tea plantations in Assam.

Regulations of Hours of Adult Males

Legislation limiting the hours of adult male workers falls into two classes, the first affecting persons in occupations of every class and that affecting only those in dangerous and unhealthful trades. The latter class comprises the earliest legislation restricting the hours of labor. In the days of the guilds in Germany a working day of six hours was observed in underground mines so that the present prevailing hours actually mark a decline in some respects. Today the mines of England are on the verge of securing the 6-hour day; and Lord Leverhulme of that country looks to the 6-hour day in industry as perhaps a not distant realization.

Of the hazardous and unhealthful occupations mining is significant for the relatively short hours of labor observed by its workers. It has been estimated that three-fourths of the world's coal supply is at present produced on the 8-hour day.[35] The length of the underground shift in mining in various European countries is as follows:

Bosnia	12 hours
Russia	11½ "
Rumania	10 "
Sweden	10 "
Austria	9 "
Belgium (coal mines)	8½ "
Spain	8½ "
Netherlands	8½ "
Australia (New South Wales)	8 "
France (coal mines)	8 "
Great Britain (coal mines)	8 "

The statutory hours are 48 per week in Germany, Greece, Norway, Finland. No regulations are found in Hungary, Bulgaria, Italy, Luxemburg and Servia, all of which have mines. The hours as stated above mean something a trifle different in each country according to the definition of a shift. The intention, however, is generally to prevent the stay of the miner underground beyond the stated limits. The British coal mines regulation act of 1908 provided apparently for an 8-hour shift from bank to bank, but exceptions allowed make the law practically a 9 or 9½ hour law, hence the demand on the part of the miners to change the wording

[35] Bauer, Stephen. *Der Weg zum Achtstundentag;* Zurich, 1919; p. 11.

from "eight" to "six" and thereby to establish a real 8-hour day underground. The miners, however, compromised their demand and accepted a 7-hour day as had been promised by the government.

Hours of Labor in General Employments

Some of the general factory laws of the European countries prescribe within certain exceptions prevailing hours of work for factory employes. Most factory laws do not, however, regulate the hours of work of adult males. The Swiss factory law of June 18, 1914, reduced the working day in factories from 11 to 10 hours. Nine hours may be worked on Saturday. Overtime in excess of 2 hours a day nor for more than 80 days a year is prohibited. The law may not be evaded by giving out work at home. Spain, in 1913, also legalized the 10-hour day or 60 hours a week. France limits the workday to a maximum of 12 hours; but ministerial and other regulations may prescribe fewer hours. For example, regulations have limited the hours of labor of engineers and firemen on railroads to 10 a day. The longest hours of consecutive work may not exceed 17. In Austria the factory day is fixed at 11 hours, but with numerous and important exceptions. Denmark, Italy and Sweden do not regulate hours of adult males; the matter is left to private contract.

Eight Hour Laws

The 8-hour laws are of special interest. They are in most cases the result of revolutions or war-time conditions. While they are not all in warring countries, the war psychology, the war-time restlessness of labor, lies back of them, however remote from the actual scene of operations the countries affected may be.

Immediately following the Russian Revolution in March, 1917, the Finnish Senate ordered the 8-hour day in state railroad shops and the government printing office. On November 27, 1917, a general 8-hour day was legalized after extensive strikes in the metal industry and after it had been agitated and secured in several other trades by collective agreement.[36] As amended August 4, 1918, it provides for a general 8-hour day in all trades and occupations, allows overtime not exceeding 2 hours a day, or 24 hours in 2 weeks, and 200 hours a year; but an additional

[36] *Sociala Meddelanden utgivna av K. Socialstyrelsen*, Stockholm, 1917, No. 6, pp. 802, 803; *Finlands Forfattningssamling*, 1917, No. 103, 1918, No. 94.

150 hours a year maximum may be allowed by special order of the factory inspectors.

Two other European countries now have a universal 8-hour day,—Norway and Germany having acceded to the demands of their workers, the former in a temporary act of August, 1918, and the latter by an order of the Provisional Government November 12, 1918. The Norwegian act restricts the working day in its factories to 8½ hours and the week to 48 hours. The act repeals the 9-hour day or the 54-hour week contained in the factory act of 1915. It remains in force during the war period and 12 months after the peace declaration.[37]

The order of the German Government[38] applies to workers in all industrial establishments, inclusive of mining, Federal, state and municipal works, and "in agricultural subsidiary establishments of an industrial nature." This latter phrase probably includes, for instance, such operations as those of creameries or dairies or cheese factories run as part of the operations of large landed estates.

The order provides for a net 8-hour day, i.e., one exclusive of rest periods, but permits that a shorter Saturday or day preceding a holiday may be observed by making up the necessary hours during the other working days. General exceptions to the daily working hours are to be allowed in railroading and the various services of communication; but these exceptions are to be arranged by agreements between the parties or by governmental order in default of such agreement. Temporary emergency work is exempt from the law.

Work of a continuous nature and where an immediate shortage of labor exists may secure special exemption after consultation with both employers and workers. Sixteen hours is the maximum allowed at shift changes in continuous operations, to be followed by an uninterrupted rest of 24 hours for those in the overlapping shift.

While the 48-hour week is the rule by collective bargaining in Australia, one of the states in 1916 enacted an 8-hour law.[39] In

[37] *Sociale meddelelser utgit av Departementet for Sociale Saker, Handel, Industri og Fiskeri;* Christiania, 1918, No. 4; p. 187.

[38] *Reichsarbeitblatt;* Berlin, 1918 (December); p. 880.

[39] *New South Wales Official Year Book,* 1917, pp. 537, 538.

practice in New South Wales the 8-hour principle is applied in 5 working days of 8¾ hours each and 4¼ hours on Saturday. The 8-hour act of 1916 limits work underground in coal mines to 96 hours in 14 days for firemen, examiners, etc.; to 48 hours in 6 days for men handling coal; and to 8 hours during the 24 for all others. In metalliferous mines, above ground work, it is limited to 8 hours in the 24, or 88 hours in 14 days, and in underground shifts 6 hours if during 4 hours the temperature is above 81 degrees Fahrenheit. All other industries are to operate 8 hours per day for 6 days a week, 48 per week or 96 hours in 14 days. Overtime is not prohibited, but must be paid for at prescribed rates. However, it may be prohibited by agreement or by an award of an industrial court.

The factory act of 1908 of New Zealand requires 8¾ hours work per day and 48 hours per week with restricted overtime to be paid for additionally but at regular rates. It is interesting to note that those doing work in their own establishments must observe these hours. This is aimed at the Chinese laundrymen to prevent unfair competition on their part with local labor. The usual method of all laws, it may be observed, is to lower standards to prevent competition of backward and low standard labor; here is an instance of raising standards to prevent competition.

Two Spanish American states have enacted general 8-hour laws, namely, Ecuador and Uruguay.[40] The Uruguayan law of November 17, 1915, makes the 8-hour day applicable to any factory, workshop, shipyard, stoneyard, harbor works, shipping and all commercial and industrial undertakings, including also public works. While overtime is permitted, the hours of work may not exceed 48 per week. The law of Ecuador, September 4, 1916, while very similar in its scope and application, is apparently less drastic in its overtime provisions, and does not apparently restrict the amount except in so far as extra compensation is required to be paid.

[40] *Monthly Review of the U. S. Bureau of Labor Statistics;* Washington, April, 1916; Jan., 1917.

Recent Phases of Competition in International Trade

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ALTERED competitive conditions in international trade resulting from the world war have completely disarranged the world's commercial chessboard. A regrouping is taking place whereby the relative positions and spheres of influence of the leading commercial countries are being vitally affected.

Prior to the war Great Britain, Germany, the United States and France, in the order named, divided the lion's share of the world's foreign trade. Now the way seems open for the United States to take first place. From a debtor it has become the leading creditor nation of the world.

Japan's foreign trade exhibits a remarkable growth. In 1913 it had a balance of trade of imports over exports of approximately $48,485,715. In 1917 the export trade of Japan showed a balance of $283,606,295 over imports.

Of the neutral countries of Europe, Sweden, Denmark and Spain show a great proportionate growth in their foreign trade during the war, as do also Argentine, Brazil and Chile. On the other hand Great Britain and France have suffered heavy losses in the money value of their foreign trade. So, too, Russia, the Netherlands and Norway.

This universal dislocation of commerce and trade, involving loss of trade on the one hand and acquisition of new markets on the other, has greatly stimulated activity in foreign trade. Efforts to regain what has been lost or is being endangered by new competitors, and to hold and expand what has been newly acquired, surpass all precedents in scope, in keenness of rivalry and in systematic methods of endeavor. The attention of business men has been thoroughly aroused as to the future possibilities of foreign markets, not as dumping grounds for temporary over-production, but

[1] Acknowledgment is made to the patient and helpful assistance of Dr. William Notz of the Federal Trade Commission staff, in the preparation of this paper.

as permanent fields for enterprise. Individual and collective efforts on the part of private concerns to establish and foster trade relations with foreign markets are being backed up by government aid and coöperation. A world-wide drive for foreign trade has begun.

GREAT BRITAIN

The most comprehensive preparations for promoting foreign trade made during the war by any of the leading industrial countries of the world have been made by Great Britain. Her oversea trade machinery has undergone a complete over-hauling. Shortly after the outbreak of the war Sir Edward Grey voiced the view generally prevailing in British official circles as well as among business men and others interested in commerce and industry as follows:

> If we want to capture trade in neutral markets we must see to it that we have high production instead of low. The other want of ours is industrial organization. Without this we cannot successfully compete with American and German industries, which, owing to their own superior method, work en masse. We are far too individualistic as a rule. We have to combine to hold our own.

This plea for concerted effort for solidarity of trade interests at home and for coöperation in meeting foreign competition found a responsive audience. Henceforth economic unification of the different industries of the United Kingdom, and on a larger scale economic nationalism of the business interests of the whole Empire became the watchword, and gave a new direction to the commercial policy of the nation.

The Committee on Commerical and Industrial Policy after the War

In 1916 the Prime Minister appointed a Committee on Commercial and Industrial Policy after the War which was "to consider the commercial and industrial policy to be adopted after the war." Among its terms of reference, this committee was to consider "what steps should be taken to recover home and foreign trade lost during the war, and to secure new markets." In its final report presented to Parliament in 1918 the committee points out, among other things:

> That notwithstanding the strength of the United Kingdom's economic position, there is a widespread feeling that a reconsideration of our industrial and trade

organization has become necessary in consequence of the increasing intensity of foreign competition, based largely upon a system of combination in respect of production and distribution which has hitherto made comparatively little progress in the United Kingdom. While there is a danger that consolidation and combination not only may tend to diminish individual initiative and enterprise to which the progress of British manufacture and industry has been largely due, but also may be carried to a point at which it becomes inimical to the general interests of the country, we agree generally with the opinion that in some important directions the individualistic methods hitherto mainly adopted should be supplemented or entirely replaced by coöperation and coördination in respect of (1) the securing of supplies of materials, (2) production (in which we include standardization and scientific and industrial research), and (3) marketing. . . . We recognize that the formation of organizations for marketing in respect of overseas trade will stimulate the creation of combinations for the control of domestic sales. We believe, however, that such development is not only desirable in some cases, but practically inevitable under modern conditions, and that the attitude of public opinion, of local authorities and the state, which has hitherto been antagonistic, must be modified. We consider, moreover, that, so far from being adverse to the interests of labor, combinations of employers are on the whole beneficial to the workers in the trade affected in respect of rates of wages, steadiness of employment and other matters.

The policy advocated by the committee has been actively promoted by the British Board of Trade during the past two years.

Fostering "Key" Industries

Two further points emphasized by the Committee on Commercial and Industrial Policy after the War relate to certain essential industries. These so-called "key" or "pivotal" industries comprise certain special commodities which are considered essential to national safety, as being absolutely indispensable to important British industries, and which were supplied before the war entirely or mainly from present enemy sources under present enemy control. In addition to synthetic dyes and spelter, they include tungsten, magnetos, optical and chemical glass, hosiery needles, thorium nitrate, limit and screw gauges, and certain drugs.

Regarding these "key" industries the committee recommended "that they should be now maintained in Great Britain at all hazards and at any expense," and that "failing efficient and adequate output, the government should itself undertake the manufacture of such articles as may be essential for national safety." The committee recommended the establishment of a permanent board to be known as "the Special Industries Board" charged

with the duty of watching the course of industrial development and of framing from time to time detailed schemes for the promotion of "key" industries. This board is to be represented in Parliament by the head of the respective department which is entrusted with the care of the commercial and manufacturing interests of the country.

Already action has been taken by the British government to foster certain "key" industries, particularly that of artificial dyestuffs. Under a special law the British government has granted large subsidies to British dyes and other dyestuff manufacturing plants. To strengthen further the industry, a scheme for amalgamating the leading British concerns manufacturing coal tar dyes has had the active backing of the Board of Trade and is now being consummated. The new concern, which will include British Dyes, Ltd., and Levinstein, Ltd., will convert the British dyestuff industry into one large national industrial unit, subsidized by the government, and powerful enough to cope with any foreign competition. On February 24, 1919, the Board of Trade issued an order prohibiting the import of dyestuffs except by license. A Trade and Licensing Committee, composed of an equal number of representatives of the dye manufacturing and dye using industries, will administer the order.

The British Board of Trade Reorganized

The inspiration and center of the whole movement for British trade expansion is the British Board of Trade. From there ambitious plans for reconstructing the domestic and foreign trade machinery of Great Britain have emanated, and have been put into execution. The board itself has undergone a complete reconstruction during the war. As constituted under the new scheme of organization the Board of Trade consists of two main departments—The Department of Commerce and Industry, and the Department of Public Service Administration.

The Department of Commerce and Industry is mainly concerned with the development of trade, with vigilance, with suggestion, with information and with the duty of thinking out and assisting national commercial and industrial policy. It is subdivided into the following divisions: (a) Commercial Relations and Treaties, (b) Overseas Trade Development and Intelligence,

(c) Industries and Manufactures, (d) Industrial Property, (e) Industrial Power and Transport, (f) Statistics.

The Department of Public Service Administration is primarily engaged in the exercise of statutory and other administrative functions of a permanent nature with regard to marine affairs, public utilities and harbors, railways, companies and bankruptcy.

Trade Association

Side by side with the various activities of the British Government in its drive for promoting foreign trade, some of the preparations made by British trade associations for developing export trade merit special attention. The Federation of British Industries at its last annual general meeting in October, 1918, had a membership of 951 in which number 164 trade associations were included. The federation represents 16,000 manufacturing companies with a total capital of $20,000,000,000.

The president of the federation in his presidential address said, among other things, that "it would add enormously to the strength of the federation and to British industry generally, if their huge membership would definitely adopt the policy of buying each others' products in preference to foreign goods." A resolution was passed:

> That commissioners or representatives of the federation be appointed in each of such overseas markets as may be determined, who are to act as a center for collecting and classifying information from all parts of the market area to which the commissioner is accredited; to institute a close inquiry into the national resources of the country; to keep lists of likely men to act as agents for members; to retain a legal adviser in the country for the use of members; to encourage propaganda for British trade; to have a library for trade literature and catalogues; to give information as to the financial position of local firms; give advice on local and trade customs; to form a link with the representatives of the British government with a view to securing the assistance of the government for British manufacturers where necessary; to arrange for coöperative placing of advertisements; to create new or get in touch with existing associations of each country composed of the principal firms engaged or interested in industry; to appoint a local board of prominent business men in sympathy with British aims to advise him generally.

The British Manufacturers' Corporation is another trade organization which has recently been formed "to ensure British trade prestige in overseas markets." Its membership includes large and small manufacturers in all industries. It is to serve as an instrument for the getting of orders from overseas.

Sir Charles Mandleberg of Manchester, one of the founders of the corporation, recently said that "the aim of the corporation is to equip British manufacturers in every possible way for the coming struggle, and instruct that no manufacturing firm with hopes of increasing its export trade should be left outside this organization in the national interest, or can afford to remain outside it in its own interest. . . . . " The scheme which the corporation proposes to put into operation hinges upon the "man on the spot," the directing spirit in the foreign market who is:

> To guide manufacturers in catering to trade, protect their interests, and be first on the track for possible orders for them. He is to secure the best agent in the country concerned; will retain the services of technical experts, and will generally communicate every change or development in trade requirements to the members. The home arrangements include an information bureau in the chief manufacturing centers here, and also facilities for advances of money and the guaranteeing of foreign accounts.

Bank Amalgamations

A matter of material importance and of vital bearing upon London's preëminence as the financial center of the world consists in the recent amalgamation of British banks. As a result of this process of concentration of financial power, there are now only five big London banks apart from the Bank of England. One of the most important bank amalgamations, effected in 1918, was that of the London Joint Stock Bank with the London City and Midland Bank. The branches and agencies of the two banks in foreign countries cover the whole world. Sir Edward H. Holden, chairman and managing director of the new concern, in a speech at the annual general meeting of shareholders in London on January 29, 1919, discussed the bank's financing of imports and exports for the past year as follows:

> The acceptances amount to £13,146,000 against £8,827,000 last year. These are our acceptances on behalf of Colonial and foreign bankers, and it is through this medium that our imports and exports are financed. We must expect these figures to grow still larger now that the war is over because trade restrictions in this country and in foreign countries are being removed. When goods are shipped to this country from foreign countries they are paid for by the negotiation of the acceptances of the English bankers, and when exports are made they also are paid by the negotiations of these acceptances in one way or another. Of course the payment of these acceptances is ultimately made in London, and this has been one of the means by which London has become the financial center

of the world. We hope, of course, that London will remain the financial center after the war, but this will depend to a large extent upon the accommodation which London bankers are able to afford foreign bankers by way of acceptances.

Sir Edward Holden, on the same occasion, referred to a plan of sending a part of the bank's staff abroad to work in foreign banks to acquire the language of other countries as well as a better knowledge of foreign business.

GERMANY

The victorious outcome of the war for the Allies has deprived German plans for future trade expansion in the world's market of their one vital prerequisite,—victory for the Central Powers. Virtually all of Germany's ambitious plans for international commercial supremacy,—whether they embraced the welding of closer economic relations between Germany and Austria-Hungary, the promotion of her trade with the Near East, with Latin America and other parts of the world, or whether they related to the importation of raw materials, the expansion of her merchant marine and of her oversea banks,—were predicated on a victorious conclusion of the war on the part of Germany. The signing of the first armistice spelled disaster for Germany's ambitions as a leader in international trade.

The elaborate plans for rehabilitating her foreign trade worked out by the new Reichswirtschaftsamt (Imperial Department of Economic Affairs) which was organized during the war; the preparations made by private associations for promoting foreign trade, like the "Deutscher Levante Verband (German Levant Association) and others, appear impotent and innocuous in the light of the helpless economic condition in which Germany finds herself today. The political and industrial upheaval which followed the signing of the first armistice terms but accentuates her plight.

For the time being, at least, Germany is eliminated as an important factor in international trade. Some of her basic industries which figured very prominently prior to the war in shaping Germany's foreign trade policy are paralyzed. Her largest cartels, which during the quarter of a century preceding the war constituted the backbone of Germany's commercial and trades enterprises in foreign countries, are in a state of dissolution. The abrogation

by Luxemburg of her Customs Treaty with Germany caused some of the largest steel and iron plants to withdraw from the German Steel Syndicate. Other difficulties for the Steel Syndicate arise from the Allied occupation of the Saar and Lorraine, where works of other members of this Syndicate are located. It is announced from Essen that the local Workmen and Soldiers' Council has resolved to occupy the premises of the Rhenish-Westphalian Coal Syndicate as a preliminary measure toward the nationalization of the coal mines. Some of the leading plants controlled by the dyestuff cartel are in occupied territory. Far reaching hopes were placed on the ability of the German coal tar dye industry to regain the dominant position which it held in the world markets in the past. However, in view of the rapid development of this industry in the United States and Great Britain during the past four years, a realization of these hopes appears preposterous.

What is true of Germany holds good also as far as the other members of the Central Powers are concerned. Whatever plans for future competition and trade expansion in foreign countries have been formulated and advocated by the respective governments, by trade associations or individuals have been disarranged by the overwhelming industrial and commercial collapse following defeat.

FRANCE

The foreign trade of France has suffered severe losses during the war. While numerous plans for reëstablishing and strengthening her future position among the leaders in international trade have been discussed and advocated with much zeal in the French press, in trade circles and in parliament, the number of constructive measures actually initiated is comparatively small. Nevertheless the farsighted propaganda work of such eminent statesmen and leaders as Ministers Clèmentel and Loucheur, Senator Flandrin, M. Vallière, M. Boret, M. Herriot, the energetic mayor of Lyons and others has inspired a number of far-reaching reforms.

The excellent studies of commercial and trade conditions at home and abroad made by the Société d'Encouragement à l'Industrie Nationale merit attention. The stimulus given by the economic research work of this and kindred societies to the metallurgical, electrotechnical, chemical and other industries of France has induced many industrial enterprises to rejuvenate themselves and

to introduce comprehensive reforms of their commercial methods. Several trade associations have been formed for promoting the French export trade. One of these, the National Association for Economic Expansion, was established on December 15, 1915 under the auspices of the Paris Chamber of Commerce.

Among other things the association aims at opening up new markets for French products in foreign countries. The sample fair at Lyons has proved highly successful, and has become an international centre for the exchange of commercial and industrial information. The first fair was held at Lyons in 1916. At that fair $10,000,000 worth of goods were sold, and another $8,000,000 of orders were turned away because French manufacturers could not promise delivery during the war. At the 1918 fair there were 3,200 exhibitors divided as to nationality as follows: American, 543; English, 107; Italian, 40; Russian, 1; Swiss, 114; Spanish, 33; Dutch, 22; all the rest were French firms. This year the total number of exhibitors has advanced to 4,700.

The law of April 13, 1917, for the encouragement of the maritime trade, authorized advances to French shipowners in France up to a total maximum of 160 million francs. The loans, bearing interest at 6 per cent are to be used for constructing or purchasing cargo vessels. It is provided in the law that for a period of two years the cargo of such vessels must be destined to or proceed from French ports.

The plan to make the Rhone navigable has been widely advocated during the war. The purpose is to afford Switzerland an outlet to the sea through France, and thus to direct a part of the Swiss overseas trade by way of Marseilles.

On March 15, 1918, the Chamber of Deputies made the general question of commerce and industry after the war, part of its order of the day. On that occasion, amid general approval, M. Vallière presented a program for economic reconstruction which embraced among others, the following points:

1. Reduction of the price of French manufactures by modernization, standardization and improved technique.
2. Improvement of technical education.
3. The coöperation of shops and yards for studies and research of all kinds, for the purchase of raw materials, the discovery of markets, the shipments of finished products at common expense.

4. Adaptation of French products to the taste of customers, as a means toward the conquest of foreign markets.

5. Development and cheapening of transportation.

6. Retention of French money for French enterprise, establishment of financial facilities, such as long credits, etc.

7. Reservation of mineral resources for the French, with limited concessions of mines, and state participation in the profits.

8. Assistance to production, with a view to reducing imports.

9. Assistance with a view to increasing exports of manufactures.

10. Increasing the number of state enterprises, and of those in which the state shares the profit.

11. The deepening of rivers and harbors, building of a merchant marine and of new marine basins.

Several of these proposals have already been initiated and the vigor with which they have been furthered during recent months bespeaks a promising future for the industrial and commercial life of France.

SCANDINAVIAN COUNTRIES

Indications that the business men of Norway, Sweden and Denmark are fully alive to the future competition in overseas trade are plentiful. In November last year a congress of Scandinavian business men was held at Christiania at which trade organization for the post-war period was discussed. In the course of this meeting it was pointed out that during the war the course of development has everywhere been in the direction of concentration, cartels and the formation of monopolies. In all the more important countries and markets in which Norway is interested, competition, it was stated, will be encountered from strong private combinations, and also, to some extent, from rings enforced or supported by the state, with the object of controlling the entire foreign trade. It was argued that, being confronted by great organizations in overseas markets, the work of placing surplus exports at the most advantageous prices and of buying articles of consumption at favorable prices, must be carried out by organization and unity. Exporters were urged to operate in a body, whilst importers were advised to resign themselves to collective operations even on the foreign markets, where the individual would very frequently be subordinate and compelled to accept unfavorable prices. Finally it was pointed out that the conditions of the future will demand a higher mercantile culture all around.

Coöperation with the importers and exporters of neighboring countries—Sweden and Denmark—would also strengthen Norway's position as buyer and seller. This form of economic coöperation in the North seems certain to come to the front in the future, and gain the greatest significance when complemented by the interchange of goods between the three countries.

In Sweden the policy of coöperation for export trade has been put into actual practice on a large scale. Last year twenty Swedish industrial associations combined to form an export council, called the Svenska Exportindustriernas Centralrad. The most important members are the Iron Institute, the Swedish Cellulose Association, the Swedish Wood Pulp Association, the Swedish Timber Export Association, the General Export Association of Sweden, the Swedish Industrial Association, the Swedish Chemical Industries Office, the Swedish Machine Industries Association, the Swedish United Goods Association, and the Swedish Timber Industries Association.

Sweden's plans for developing her commercial future embrace among other things closer relations with the Baltic trade. With this object in mind plans are now being carried out for making Malmo a free port. It is believed that a large volume of transshipment trade will be drawn to that port, and that ultimately Malmo will become the leading trade centre on the Sound.

JAPAN

The expansion of Japan's trade and industries during the war has been phenomenal. Large orders for munitions from the Allies and requirements from the Far Eastern countries and the South Seas, where the imports from Germany and other belligerents had ceased to come, enlivened the export trade. The scarcity of freight space throughout the world and the abnormal rise of charterage of Japanese ships engaged in foreign trade stimulated shipbuilding. The sudden shortage of imported chemico-industrial products and of machinery caused new enterprises in these lines to spring up at home. Lastly, the great accumulation of funds owing to the combined result of the first two factors facilitated the expansion of commercial and industrial activities.

Japanese business men were quick to recognize the opportunities open to them in foreign markets. In a systematic way and along

broad visioned lines, actively backed by their government, a well organized foreign trade machinery was established with the result that the value of the total exports from that country was trebled in 1918 as compared with 1913. The value of the exports from Japan to Australia alone increased from $3,172,830 in 1913, to $14,469,855 in 1917.

A new department in Japan's foreign trade policy was the official inspection (conditioning) of certain exports. The purpose of the law under which this inspection is carried on is to establish better grades of quality for Japanese export goods. Thus far the compulsory inspection embraces chiefly textile goods. Celluloid manufactures have recently been added, and also starch. It is sought by this means to maintain the export trade in starch which showed an increase in value of 250 per cent for 1917 over the preceding year.

During the war Japan's exports of cotton cloth have been multiplied fivefold in value, and the government realizes that, if the markets newly gained in China, India, the Dutch Indies, Australia, and the Philippines are to be retained, the quality of Japanese cotton cloths must bear comparison with that of cloths of British and other production. Japanese manufacturers will, therefore, be required by the government to keep their exports up to a fixed high standard. The Department of Agriculture and Commerce announced recently that a scheme was in preparation for the formation of an association of textile manufacturers, which would be charged by the government with strict supervision over goods woven for export. The association will also examine such goods through inspection committees, and bounties will be granted by the government to bear part of the cost of conditioning exports.

In Japan the subsidizing of commerce and trade by the state is practiced on a larger scale than in other countries. During the past four years this policy has been pursued with increased vigor particularly in connection with those industries which are calculated to net large increases in foreign trade.

Under a special law enacted in 1915 the government is authorized to give financial aid to her dyestuffs industry. With this backing, several new plants have been built, and the total amount of capital invested in the more than one hundred factories, exclusive of small ones, is reported to be more than 15,000,000 yen.

Combined efforts by the government and the textile and chemical industries of Japan to make their country independent of foreign dyestuff manufacturers tie in with an active trade campaign to introduce Japanese dyes in the markets of the Far Eastern countries. For this purpose Japanese manufacturers of dyes and colors have during the past year shown their products at numerous exhibitions at home and abroad.

Japan supplies about 28 per cent of the total world's consumption of silk and approximately one-third of her total exports prior to the war consisted of raw silk. Comprehensive plans have been made during the war to foster this trade. Under the Raw Silk Industry Act the National Association of Raw Silk Industry of Japan was founded in 1915. The law provides that all local associations shall join the National Association. One of the objects of the new central organization is to develop the export of raw silk and to increase the interests of the raw silk industry. The association has sent a representative to the United States to study the silk conditions in this country and to keep the association informed on all matters pertaining to silk.

The expansion of her merchant marine has been consistently advocated in Japan's foreign trade policy. During the war shipbuilding has been promoted by all possible means, and government subsidies have been freely extended for this purpose. Japanese vessels now run on four great routes to Europe, North America, South America and Australia. There are also lines plying between Japanese ports and Korea, Northern China and nine ports on the Yangtse-Kiang. In return for the subsidies to shipping companies for foreign trade, the Japanese government assumes the right to regulate all inward and outward rates on the products of Japan. It regulates the sailing dates and routes of subsidized boats, and the rates which these boats may charge for export and import cargo, being guided mainly by the desire to build up Japanese foreign trade.

The Japanese banks are active factors in the foreign trade machinery. The Yokahoma Specie Bank, for instance, had its charter modified in order to enlarge its foreign trade department. Other banks also are extending their operations both at home and abroad, and are giving financial help to shipping undertakings. At present they are giving attention to the mineral resources of

China, including those of the rich Hunan province, and are also reported to be considering the establishment of electrical undertakings in the interior of China with Japanese money, machinery and engineers.

Recently the keenness of the Japanese has been very apparent in the systematic way in which they are extending trade with the Dutch Indies, the South Sea Islands, and Australia and New Zealand. A commercial museum is to be established at Singapore by the Department of Agriculture and Commerce of the Japanese government, with the object of extending Japanese trade through that centre. Not only will merchandise be exhibited, but investigations relating to trade and commerce will be undertaken, and the museum is intended to become a central base of Japan's commercial operations in that part of the world. The establishment of similar institutions is contemplated in due course at other places, including Harbin.

THE MARSHALLING OF TRADE FORCES

In the foregoing some of the plans have been mentioned which may be considered typical of the world-wide preparations for post-war competition in international trade. An analysis of the whole situation makes it appear that, in the future, competition in the world's markets will be carried on along different lines than in the past. Improved methods of trade expansion and new policies of trade strategy have been introduced. A much greater degree of solidarity of commercial interests has been brought about through the formation of trade associations and combinations of manufacturers and exporters. Through various forms of state participation in industry, especially by granting subsidies, new domestic industries have been firmly established. By means of bank amalgamations and through interlocking directorates huge agglomerations of capital have been effected. International promoting companies have been formed for acquiring and developing mining, transportation and other concessions in foreign countries.

Purchasers and consumers have organized, likewise, largely as a measure of self-protection against monopolistic exploitation. In European countries coöperative purchasing societies have grown rapidly. The French government has promoted the formation of so-called "consortiums," *viz.*, syndicates for purchasing

and apportioning supplies. In Italy the purchase and sale of several commodities, among them coal, was made a state monopoly under royal decree.

Future competition among the leading commercial nations of the world seems certain to be keener and more intense than ever before.

A survey of the world's trade situation would be incomplete without mentioning a movement to which the war has given a strong impetus and which underlies many of the plans for trade expansion now advocated in foreign countries. This movement aims at establishing economic autonomy. It is most pronounced in Great Britain, France and Germany.

One of the economic lessons taught by the war is the danger of a country's sources of indispensable supplies falling under foreign control. The vital importance to the economic life of a nation both in peace and war, of having certain essential industries firmly established at home, is now generally recognized. Other similar factors helped to quicken this growing movement towards economic nationalism. On an international scale it found expression in the plans to establish a Middle European customs union. It was openly espoused at the economic conferences of the Scandinavian countries, and also at the economic conferences of the Allies at Paris and Rome. The Inter-Empire movement in Great Britain constitutes another phase of this movement. "British goods for British people" has been widely advocated at trade fairs and exhibitions held throughout the British Empire during the past two years. In other countries a similar movement towards national self-sufficiency is noticeable. In line with this policy are the plans for establishing new tariffs, various kinds of exclusion acts and similar measures of economic offense or defense, as the case may be. The debates in the parliaments of the leading commercial nations of the world on the subject of commercial policy after the war plainly show that there is a widely prevailing apprehension that a policy of "after the soldier, the merchant" would develop after the war. On all sides the fear of economic invasion and commercial penetration is voiced, and means to avoid eventualities of that kind are being urged by party leaders.

In view of this situation the demands of the hour seem to point out the need of constructive action on an international basis for

the future protection of commerce and trade. A new international code of regulations for the protection of industrial property against unfair methods of competition, dumping, infringements of patents and trademarks, etc., and potent means for enforcing agreements of that kind through an international tribunal of commerce and trade, may prove to be one of the most important instruments for preventing friction and promoting good will in the commercial theatre of the world.

Economic Factors in the Peace Settlement

By Isaac Lippincott

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ONE important result of the war has been the protest against restrictions on trade. This statement does not refer to war control, but to the increasing number of obstructions to the flow of international commerce in the years before 1914. What freedom means has never been clearly stated in these protests, and the connotations are not understood. The opposition to restrictions is largely a product of the revelations of German methods of economic penetration, and of the fear of her growing industrial strength due to her trade practices, and to the combination and concentration of her industries which threatened her rivals with destructive competition.

The establishment of more equitable conditions of trade is urged both by those who see in restrictions a potent cause of future international strife, and by those who advocate the policy of freer trade as a condition for the greatest development of world commerce and industry. The former idea has received the strongest emphasis during the war period. To quote from one of President Wilson's fourteen points,—what is desired is "the removal, as far as possible, of all economic barriers and the establishment of an equality of trade conditions among all the nations consenting to the peace and associating themselves for its maintenance."[1] Elsewhere, President Wilson expressed a similar idea: "Responsible statesmen must now everywhere see, if they never saw before, that no peace can rest securely upon political or economic restrictions meant to benefit some nations and to cripple or embarrass others, upon vindictive action of any sort or any kind of revenge or deliberate injury."

In spite of protestations and notwithstanding the sincere longings for better trade relations the actual policy the nations will follow in the immediate future bids fair not to be freer, but more restrictive. This plan is adopted with relatively little thought of its effect on other nations, or of the long run results on

[1] Quoted from Lindsay Rogers, "The Problems of Reconstruction," p. 230.

the welfare of the nation itself. Recent developments make it clear that the countries will follow that policy in international trade which best promotes their individual interests.

CONFLICTING POINTS OF VIEW

There is thus a strong contrast between ideals and practice, and between things hoped for and things actually sought. It is easy to understand this conflict. Towering above all other considerations is the opposition of present and future economic interests. It is largely a question of the "short run" and the "long run" points of view in international policy. The economic statesman may admit the reasoning of the idealists but he urges that at best economic forces work slowly and with many deviations and uncertainties. He seeks short cuts to his desired goal. More than ever before the exigencies of the present demand solutions which act promptly and surely, and always in the national interest. The future interests of the nation may suffer somewhat because of this policy, but the present critical state of industry makes the sacrifice necessary. Industries have been badly disrupted, markets have been lost, workmen are in a serious state of unrest, huge debts must be paid, and what is more disconcerting, foreign markets must be won in the face of the severest competition the world has ever seen. There is thus a premium on short run measures. That policy is urged which promises quick results. The future must to a large extent take care of itself.

Not only is there a conflict between present and future interests of given nations, but between the interests of the nations. As far as we may glean from present measures there is little indication that the countries will adopt the broad generous policy of giving any considerable amount of aid and support to their rivals in restoring industries; nor will they politely wait at scratch until all are ready to start on substantially equal terms in the world industrial conflict. It is clearly recognized that success will crown the effort of those who look out for themselves, and who employ prompt and vigorous measures of defense and aggression.

Of course, there is no intention of "forcing" the operation of economic laws. The purpose of the prospective regulations is to eliminate as far as possible the operation of certain forces and to

strengthen the workings of others. The purpose of control is to direct the economic stream, to straighten, and perhaps to narrow its channel, so that it will flow in the desired direction with greater velocity. This is the purpose of regulation whether applied to trade within countries or to international relations.

The outcome of the conflicts mentioned above will be to increase the hardships of the nations which are trying to reëstablish a normal peace order. Policies which would have caused no unusual irritation in times of peace will now scarcely go unchallenged, partly because the strain of the war has made the peoples of the world more sensitive, and partly because the sorry plight of most nations will cause them to resent measures which might have been considered appropriate when all were financially strong and industrially prosperous. Thus the questions are raised: What policies may be accepted as a basis of friendly trade relations? How has the war affected the outlook of the nations on world trade? What new trade developments have occurred, and what is their significance? The purpose of the following discussion is to answer these questions.

INDUSTRIAL INTERDEPENDENCE

Any solution of the question of friendly relations will miss its mark which overlooks the industrial interdependence of the countries. That the economic welfare of one region is inextricably bound up with that of all the others is now axiomatic. Restrictions by one nation which seeks to place itself at a point of vantage creates hardship for its rivals near and far. The regulations incident to the war have made this point clear. Distant countries have felt the misfortunes of the war because their customary industrial relations with the warring nations were disturbed. On the one hand they have been deprived their usual supplies of manufactured goods, and on the other they have been unable to market their surplus of raw materials. Had the neutrals been industrially self-sufficing, war regulations of belligerents would have had little effect. But they have passed beyond this stage, and their hardships have been a product of their dependence.

What is true for war regulation is true to a smaller extent for control of trade in times of peace. A most impressive feature of

economic interdependence is that it increases rapidly with industrial progress. To give only a few examples: The growth of the factory system tends to make manufacturing nations more and more dependent on the outside world for food supplies. It does more. It increases the need of foreign markets for the surplus of manufactures, and makes necessary new foreign sources of raw materials. Great industries are founded and workmen trained under the assumption that trade will continue to flow in the established channels and probably will develop new ones. The very old enterprise of stone cutting at Idar and Oberstein draws its materials from every part of the world, and the new vegetable oil industry at Hull, England, looks far beyond the borders of Britain, and even beyond the confines of the empire for the materials on which its prosperity depends. Similar illustrations might be found in abundance. Technical improvements, of course, increase this dependence. Only a few years ago, three commercial forms of iron sufficed for the manufacture of all manner of iron and steel products. But great changes have taken place. Small quantities of a variety of rare metals garnered in from all quarters of the globe are now required to give exact properties to many kinds of steel products. Each use demands a property which is peculiar to it. Foreign restrictions on the supply of the necessary metals may cause a serious dislocation of industries. No country, however great its resources, is able to provide the materials for the manufacture of its varied products. Thus the nations with diversified industries are dependent on the outside world for supplies. Inventions, improvements, and the growing variety of tastes all contribute to the increase of this dependence.

Interdependence is one of the most important factors in foreign trade. If our purpose were to develop this argument it could be shown that under the influence of this principle trade associations, such as foreign chambers of commerce, are springing up all over the world, that intricate systems of credit and banking have been developed, and that the world has been girdled with vast systems of communication. Restrictions on commerce operate against the advantages gained by this interdependence. They cause irritations and hardships. They are a potent cause of international strife. They impose handicaps on poorer countries, and in the long run work to the disadvantage of the richer ones.

All this suggests principles which should guide us in framing satisfactory peace terms. Freedom to develop should include economic as well as political factors. Commercial measures should not be devised which deprive countries, or regions, of their native advantages whether of resources, of capital, of abundant labor supply, or of other elements of production. Where economic exploitation takes place, it should have regard for the welfare of the people whose country is exploited. In sum, the goal should be to secure and perpetuate the mutual advantages of trade and to refine the methods.[2] It goes without saying that the nations should prevent if possible all forms of unfair competition in international trade, the results of which are to deprive countries of their industrial opportunities and to make them dependent on others. Normally, unless a country drives hard bargains and practices some of the unfair methods, trade is of advantage to all parties concerned. It is a lever which lifts the poorer and more backward countries to economic progress. Where foreign capital, for example, builds railroads and electric lines, erects power plants, improves harbors, develops resources and founds industries, it gives employment to the labor of such countries, provides them with products for export, increases their purchasing power, stimulates their ambition, and in general raises them in the scale of living. Trade is thus a civilizing force. The benefits accrue as well to the people of the countries exploited as to foreign capitalists who provide the funds and enterprise. In the case of trade between highly developed countries commerce is the result of a sort of division of labor by which each nation devotes its attention to the industries in which it has advantages, and again, where it is pursued without restrictions it is a beneficial and stimulating process. With some exceptions this was the course of trade development before the war, both in the case of large and small countries.

This does not mean, of course, that trade moved across national boundaries without some measure of control. Fiscal measures have long been bound up with commercial policy; the trade of all countries has been made to yield revenue in some form. Besides, the commercial policies of most countries have comprehended sometimes bounties, sometimes protective measures of all degrees

[2] *Cf.* Lippincott, in *Washington University Studies*, VI, No. 1, p. 44.

of rigor, sometimes both bounties and tariffs. And not only imports, but in the case of some countries, exports also have been taxed. But, withal, it can scarcely be said that these measures seriously impeded the flow of trade, or as a rule, that they produced hardships in any country.

NEW FORMS OF TRADE REGULATION

But even before 1914, there were some indications that the old methods of regulation were beginning to pass away,—or at least were being supplemented by others. The growing industrialism alarmed those countries which were in its meshes. The mere fact that the nations were dependent on the outside world both for markets, for finished products and for raw materials made them eager to control the conditions of trade, external as well as internal. Thus inevitably new methods were devised to accomplish this end. Hence the policy of purchase of mineral rights abroad by the capitalists of certain countries, of investments in plantations and manufactures, of control over railroads and port facilities. All the while, industries developed into larger units. This was notably the case with banking and with certain kinds of manufacturing and merchandising. The old kind of competition in which the traders of the nations were largely the factors, was giving way to a new kind which was more powerful and destructive, namely, the method by which the traders of the country combined into huge business units for the purpose of sale of goods abroad, and for the purchase of foreign raw materials. Control, therefore, operated not only through national commercial policies, but also through the measures of these great organizations. The outcome of this system was to thwart the wholesome operation of the laws of trade, to confer great monopoly powers on groups of industries, and to impede the industrial and commercial growth of the countries which failed to employ methods of defense. Meanwhile, unfair methods were creeping into foreign trade, with the result that in a number of instances countries which enjoyed certain industrial advantages were not able to utilize them.[3]

That the traders of the competing countries were not seriously alarmed at this state of affairs was due to the fact that the new

[3] *Cf.* Henri Hauser, "Les Methodes Allemandes d'Expansion Economique," pp. 96 ff., 100, 102, 130 ff., 207 ff.

methods worked through secret and subterranean channels. The immanent dangers were scarcely appreciated. From an industrial point of view, one of the most important results of the war has been the revelation of the magnitude of control exercised by a small group of German industries, aided by the great German banks.

It is clear enough now that the enormous power latent in economic penetration made possible the control of industries far beyond national boundaries, and that it gave an advantage chiefly to the country which was most thorough in the organization of its industrial forces. In some respects economic penetration yielded all the malignant effects of monopoly. It secured control not because of the possession of superior resources, but principally through the powers incident to organization. Competing traders were thus unfairly handicapped, and some countries were deprived of the advantages of their industrial opportunities.[4] Had not the war intervened to prevent the further extension of this system, it would have probably stimulated in the near future, vigorous measures of defense which, in turn, would have ushered in an era of bitter feeling among the nations.

The new trade policies of the European countries are designed partly as measures of defense against the recurrence of such trade methods as those described above; another purpose is to enable the countries to recover their trade losses as quickly as possible; and still another is to facilitate industrial and financial reconstruction.

With respect to the future commercial plans, two notable developments occurred while the war was in progress. One was the proposed commercial alliance between Austria-Hungary and Germany, and the other the agreements contained in the Paris Economic Pact.[5] The former needs no discussion because it is a thing of the past. But the Economic Conference of the Allies yielded some results which promise to affect for some time to come the foreign trade policies of the leading European countries.[6]

[4] G. B. Dibblee, *Germany's Economic Position*, pp. 47 ff.

[5] *Commerce Reports*, Feb. 11, 1916, pp. 582–583.

[6] *Cf. Interim Report of Committee on Commercial and Industrial Policy* (London, Cd. 9033).

EFFECTS OF THE PARIS ECONOMIC PACT

From June 14 to 17, 1916, representatives of the Allied governments met at Paris for the purpose of fulfilling the mandate of the Paris conference of March 28, 1916, to give "practical expression to their solidarity of views and interests, and of proposing to their respective governments the appropriate measures for realizing this solidarity." The reading of the Pact seems to indicate that it provides for defensive arrangements. Thus the concluding sentence states:

> Whereas for the purpose of their common defense against the enemy the Allies have agreed to adopt a common economic policy, on the lines laid down in the resolutions which have been passed, and whereas it is recognized that the effectiveness of this policy depends absolutely upon these resolutions being put into operation forthwith, the representatives of the Allied governments undertake to recommend their respective governments to take without delay all the measures, whether temporary or permanent, requisite for giving full and complete effect to this policy forthwith, and to communicate to each other the decisions arrived at to attain this object.[7]

The Pact provided three groups of policies, namely, for the war period, for the transition or reconstruction period, and for "permanent measures of mutual assistance and collaboration among the Allies." The essence of this document, as one may glean from its contents, is to put these countries on an economic defensive against prospective German trade methods. We are interested only in the permanent measures, since these are designed to affect future trade relations.

These permanent measures may be grouped under three titles. They include means for making the Allies independent of their enemies as regards raw materials and manufactured articles essential for the normal development of their economic activities, methods of promoting trade among the Allies, and provisions for uniform laws covering patents, trademarks and copyrights. It is expected, under the measures proposed in the first title, that the Allies will adopt certain measures to secure their independence of Germany in the case of raw materials and commercial and financial organization. The policy also contemplates state assistance for certain enterprises of a specially desirable character, such as

[7] Recommendations of the Economic Conference of the Allies (London, Cd. 8271).

encouragements to scientific and technical research. Possibly also, the measures involve customs duties of a "temporary or permanent character." Said the Pact: "Whatever may be the methods adopted, the object aimed at by the Allies is to increase production within their territories as a whole to a sufficient extent to enable them to maintain and develop their economic position and independence in relation to enemy countries."

The Paris Pact has exerted both a direct and an indirect influence on the course of English legislation. Directly it is responsible for the passage of several important laws. Indirectly it has called attention to a dangerous trade situation which calls for remedial measures.

THE NONFERROUS METAL ACT

The British government, for example, has deemed it expedient to eliminate enemy alien influence from the domestic metal markets. The Nonferrous Metal Act, which received royal assent on February 6, 1918, was designed for this purpose.[8] The title of the law indicates that its purpose is to "restrict temporarily the persons who may engage in business connected with nonferrous metals and metallic ores." The persons referred to, as the act subsequently shows, are those of enemy nationality or of enemy connections. The measure covers zinc, copper, tin, lead, nickel, aluminum, and other nonferrous metals and ores which the Board of Trade may designate by order. It is not lawful "for any company, firm, or individual after the expiration of six months from the passing of this bill, or such longer period as the Board of Trade may generally or in any particular case allow, to carry on the business of winning, extracting, smelting, dressing, refining, or dealing by way of wholesale trade in metal or metallic ores to which this act applies, unless licensed to do so by the Board of Trade." Licenses are to be granted in prescribed form after certain requirements have been fulfilled, including the furnishing of information, and the payment of a small fee. Even the definite limit set for the operation of the act will carry it into the peace period, or at the discretion of the Board of Trade, for an indefinite time.

Already, a number of licenses have been granted under the

[8] *Commerce Reports*, April 1, 1918, pp. 4–6.

provisions of the act.[9] The new law is undoubtedly something more than a defensive measure, although the other purposes are not stated. It limits trading in the given metals, and puts control, through a system of licenses, in charge of the Board of Trade. There is no indication as yet that the measure has caused hardships to any one except those against whom it was directed, namely, enemy traders; but the new policy contains great potentialities as a method of regulation. It establishes a precedent which may be extended, slowly at first but at a subsequent time, more and more rapidly, as a trade weapon against all rivals. Such an outcome could hardly be accepted as a condition which would make for friendly trade relations.

Various reconstruction measures in England have control both of imports and exports for their purpose. During the early discussions of reconstruction measures the proposal was made to prohibit for three years after the close of the war "the importation . . . . of goods of any class, description, or origin, or produced or manufactured in part in any country or place specified in the order, either generally or from any country or place named in the order."[10] Judging from recent discussions in England, the policy of restriction will not be as thorough as that suggested in the quotation above. The following report of a speech of Sir Albert Stanley, President of the Board of Trade, gives some idea of the present status of government opinion:

> It was within the knowledge of all that the Government found it necessary during the war, either because there was insufficient tonnage, or for reasons of exchange, to impose severe restrictions upon a large proportion of the imports brought into the country. The time had come to consider the relaxation of these restrictions, and it had been suggested by various interests that they should retain for a time their control. The reason advanced was that owing to the demands which the Government had made upon manufacturers, and to the enormous changes which had taken place, the Government should for a time keep a restraining hand upon the flow of imports until our manufacturers had had an opportunity to reëstablish themselves on a peace footing. He thought that was a fair proposition, and one that should have the acceptance of the Government. At the same time they all desired to continue on the same close and friendly relations with the Allies. Friendly rivalries there must be, but

[9] *Cf.* current issues of the *Board of Trade Journal.*

[10] Tariff Series no. 39, British Control of Imports and Exports (*U. S. Dept. Com. Publications*), p. 6.

there was plenty of room in the world for everybody, and by close coöperation, good understanding, and a friendly spirit we should secure the peace of the world better than in any other way.[11]

No one could object to the spirit of this policy, but its practical application will encounter many difficulties if it is to be free of the charges of discrimination, or of the denial to friendly traders of opportunities which they might legitimately claim.

A considerable list of restrictions is proposed for the protection of the various engineering trades.[12] Thus said a recent *Commerce Report:*

There are large classes of articles imported from abroad which are made in such vast quantities and which have such manufacturing and inventive resources behind them and good will attached to them as to make competition extremely difficult. Therefore, if the manufacture of such articles is to be developed, it is necessary the committee says, that some form of assistance should be given toward overcoming the difficulties of competition. In the detailed reports respecting the various trades will be found numerous instances in which some form of protection is recommended, this protection being sometimes tariff duty, sometimes exclusion for a period of years of the competing articles, sometimes restrictions of imports from abroad.[13]

It will be observed that this policy creates a different condition of trade from that which prevailed before the war. It appears from the report that in the case of the enumerated articles, foreign manufacturers are to be denied the advantages which superior resources, or technique, or manufacturing skill have given them, and that they are to be denied also the benefit of the good will which they have built up perhaps by years of service to British consumers. This is a movement away from that kind of trade relations that makes for more friendly relations.

BRITISH IMPERIAL PREFERENCE IN OPERATION

Another tendency may be noted. While England's foreign competitors might complain mildly of the measures discussed above, they would regard in a more serious way preferential treatment by England to British dominions, or *vice versa*. Nevertheless, there are a number of indications that this policy will be

[11] *Board of Trade Journal*, Jan. 30, 1919, p. 128.

[12] For an early report see *Interim Report on Certain Essential Industries* (London, Cd. 9032).

[13] *Commerce Reports*, March 8, 1919, p. 1093.

followed. There is a suggestion of a preferential policy in the following announcement from the American Consul General in London: "Pursuant to the pledges that all articles on the list of prohibited imports, when the produce or manufacture of any part of the British empire shall be permitted to be imported, notice is hereby given that a general license has been issued permitting such importation."[14] And on March 14, our Consul General cabled that "according to an announcement made in Parliament on Thursday evening on behalf of the Board of Trade, the following articles heretofore restricted are now admitted free from import restrictions from the British overseas dominions. . . . . Importations of these goods from the United States continue to be subject to the usual restrictions."[15] The list includes cinematograph films, clocks, mineral waters, beer, playing cards, mechanical lighters, musical instruments, brandy, rum, matches, foods containing sugar, tea, tobacco, gold and wine. The operation of the preferential policy is also seen in the restrictions on the importation of American dyestuffs into Australia.[16]

In connection with the above, the following quotation must be taken *cum grano salis*, but at least it is an indication of the feeling aroused by restrictive measures as to peace-times commerce:

> American manufacturers will abandon British markets and devote attention to South American fields on account of the hard trade rules, according to London copyright dispatch to the *World*. Trade experts from America in British capital studying situation announce intention of advocating embargo on raw materials. When they return home question will be raised whether United States will permit exports to England through American ports of Canadian manufactured goods.[17]

AMERICAN TRADE PLANS AND THEIR EFFECT ABROAD

It should be observed that our own prospective trade methods are closely scrutinized in England, possibly for the purpose of detecting measures which may operate unfairly for British merchants and manufacturers. On January 30, the *Board of Trade Journal* reported that "The Governors of the cotton-growing States have issued a proclamation calling on business men and merchants to 'organize and unite with the determined purpose of

[14] *Commerce Reports*, March 14, 1919, p. 1217.
[15] *Ibid.*, March 17, 1919, p. 1265.
[16] *Ibid.*, March 4, 1919, p. 993; March 18, 1919, p. 1298.
[17] *Wall Street Journal*, March 13, 1919.

withholding from sale all cotton until a price can be obtained that will cover the cost of production, plus a reasonable profit.' It has been resolved to 'urge farmers and dealers not to sell cotton for less than 35 cents a pound, basis middling.'"[18] Likewise, the *Journal* has called to the attention of its readers the fact that "the Secretary of the Interior Department, the Director of the Bureau of Mines, the Chairman of the War Trade Board, and other Government officials" are trying to work out a plan for legislation which will embody the following proposals:

> That the Government place a restriction against the importation of manganese and other minerals which may be more cheaply produced abroad, for a given period, so as to give the American producers an opportunity to get rid of the material that they have on hand; and that the Government appropriate outright a sufficient sum of money to pay the losses of persons who went into the business of the production of these minerals at the request of the Government, and to write it off as a war loss.[19]

Our proposed restrictions on the importation of wool, and the operation of our laws permitting combination for foreign trade are receiving study and comment in England.

We might add in this connection the foreign trade policy recommended by our Tariff Commission. It is as follows:

> Equality of treatment should mean that the United States treat all countries on the same terms, and in return require equal treatment from every other country. . . . . Each country—the United States as well as others—should be left free to enact such measures as it deems expedient for its own welfare. But the measures adopted, whatever they be, should be carried out with the same terms and the same treatment for all nations.[20]

In the event that American commerce receives "unequal treatment" at the hands of foreign countries, the Commission recommends the enactment by Congress of penalty duties to be imposed at the discretion of the President on the products of the countries which discriminate against the United States. Foreign countries might read into some of these statements a policy of restrictions, particularly with reference to the clause which states that we should be left free to enact such measures as are deemed "expedient for (our) own welfare." While subsequent statements con-

[18] *Board of Trade Journal*, Jan. 30, 1919, p. 143.

[19] *Ibid*, Feb. 13, 1919, p. 214.

[20] *Official U. S. Bulletin*, March 5, 1919, p. 2; *Second Annual Report of the U. S. Tariff Commission* (1919), p. 27.

tain the promise of "equal treatment," they offer next to nothing in the way of more liberal dealings.

We have said enough to indicate the present trend of foreign trade policies in England and the United States. From the reports that come to us from other parts of the world, it is clear that the countries are moving away from even that degree of freedom which existed in 1914. It may be for a long or for a short period depending on the time it takes to restore something like normal conditions, upon the severity of competition, and upon the momentum acquired by the new measures. We know full well from our own experience, that temporary or emergency measures tend to become a fixed part of our industrial system. It is to be expected that a similar experience will be the history abroad, unless unusual efforts are made to check the tendency.

REASON FOR IMPOSITION OF RESTRICTIONS

This movement in the direction of restrictions is due, in a general way, to the exceptional conditions created by the war. First, there is the need of revenue. Commerce will be made to bear its part of this burden. The taxes, or tariffs, which will be imposed will check the freedom of movement of goods.

Second, there is the need of protecting or defending new industries. It is hardly possible that governments will deny aid to industries which have grown through service to the country in time of war, nor to other industries which have sprung up during the war period. It will be regarded as a national loss if those industries are crowded out by competition from abroad. Not only will it be a loss to capitalists but to laborers who have acquired special training in such industries.

Third, the war has greatly stimulated the desire for greater self-sufficiency. This is the trend as between groups of nations, as is indicated by the spirit of the Paris Economic Pact; it is notably the case with the "key industries," particularly in England and in France; it is the case with a few of the belligerents whose manufactures have generally been greatly stimulated by the war; and finally, it is the case with some of the neutrals whose industries have undergone a considerable transformation during the war. We may give several illustrations. With regard to Italy, an American consul recently reported that "the war has

injected new life into the manufacturing industries of Italy. The greatest progress is seen in the chemical, electrical, and metallurgical industries, which now produce hundreds of articles that before the war had to be obtained from abroad. In all lines of industry, however, consolidations of companies, increases of capital, and extensions of existing plants are the order of the day."[21] With reference to South America, one of our consuls reported that "the serious dislocation of trade occasioned in virtually all Latin American countries by the war has in the case of Brazil brought about changes of such far reaching significance as to mark a new period of growth in the industrial and commerical life of the country."[22] Similar reports come from South Africa, from Australia and from Japan. Herein will be found the occasion for the widening, and perhaps for the stiffening, of the tariff policies of such countries, with the hope of rounding out the industrial systems of such countries.

Fourth, the war has given an abundance of training in new methods of controlling commerce. Trade may be controlled not only through the operation of systems of tariffs, but by export and import licenses. Such measures are relatively easy to administer; they operate quickly and thoroughly, and to a large extent are a more effective means of control than tariff regulations. There is scarcely a country that has not had some experience with this method of control, and it is not probable that such an effective instrument will pass into disuse.

Fifth, the ability to restore normal conditions at home is, with many countries, largely dependent on their ability to market their goods abroad. Competition will be severe. The nations must employ their full economic strength for this purpose, and avail themselves of such commercial policies as will work promptly for this end.

Finally, the war has greatly stimulated the combination movement. Competition will be more severe because it will be waged by larger and more powerful units. Added to government control through tariffs and import and export regulations will be that of the great industrial combinations. One of the principal

[21] *Commerce Reports*, April 26, 1918, p. 353; May 25, 1918, p. 760; July 20, 1918 (Supplement), p. 3.

[22] *Commerce Reports*, Aug. 26, 1918, pp. 756 ff.

occasions for the development of the combination movement in European countries has been the need of preparing for post-war competition. The case for England has been stated as follows:

> The financing of our industries (after the war) will be immensely facilitated by trade organization. During the war we have seen our productive industries organized on a large scale and under the control of the State. Both organization and control were forced on us by the war. As regards State control, I hope and believe the necessity for it is temporary. As to trade organization, I firmly believe that the necessity for it will remain after the war. . . . . The day of small industries on individual lines is gone. Our manufacturers and traders must organize for united effort. This will have the closest bearing on the question of finance. An unstable, unorganized industry is the despair of bankers. I have confidence in stating that an industry organized on large lines has seldom lacked financial support in this country, and in spite of the financial stringency we shall doubtless have to face, it is not likely to suffer in the near future.[23]

Elsewhere it was said:

> The policy of the Board of Trade after investigating the question was that if British manufacturers were going to increase their export trade after the war, if they were even going to regain the trade lost, it was essential to get together in some sort of trade combination. They were prepared to face the question of trusts or combines. If they were to make a stand against combinations in other countries, it would be necessary for them to adopt methods somewhat similar to those which were employed abroad.[24]

In Great Britain great progress has been made in organizing business on a large scale.[25]

For a number of years, combination has characterized the trend of development among American industries. Our traders and manufacturers are now permitted to combine for the purpose of exploiting foreign trade. Not only have we given such consent to this policy as is involved in the law, but it appears that the Federal Trade Commission has actually recommended that the German cartel system be legalized for American foreign trade.[26] Combinations are, of course, at home in Germany. The war strengthened this movement, and the after-war measures promise a further development in the same direction. Said a recent

[23] *Commerce Reports*, Aug. 19, 1918, p. 659; *Official U. S. Bulletin*, Jan. 9, 1918, p. 8.

[24] *Commerce Reports*, Oct. 11, 1917, p. 148.

[25] Lippincott, *Problems of Reconstruction*, pp. 232 ff.

[26] *Cf.* Federal Trade Commission report on "Combination in the American Export Trade."

Commerce Report: "The German press announces several large measures which are either partly carried out or projected, and which involve the efforts of various lines of trade to bulwark themselves for the coming struggle. A veritable network of organizations is growing up, which may be divided into two groups, those which are commercial-scientific and those which are purely commercial."[27]

Further illustrations are unnecessary. World trading is in the midst of new conditions, and is confronted with new dangers. It will now require all the skill the statesmen can muster to keep the countries out of commercial wars. The principles named on a former page should serve as the ultimate goal; but the best that can be recommended for the present is that foreign trade should be purged of unfair methods, that discriminations should be avoided, that preferential treatment of favored nations or of favored regions should be reduced to a minimum, and that the new methods of export and import control should not be applied in such a way as to deprive countries of opportunities they might legitimately claim. In all instances, the commercial policies of the nations should be characterized as reasonable and fair, and the test of these terms should be found in the beneficial effects not on one nation but on all.

[27] *Commerce Reports*, March 17, 1919, p. 1265.

The Activities of the Government in Promoting Foreign Trade

By L. F. Schmeckebier

Chief of Division of Research, Bureau of Foreign and Domestic Commerce

IN the development of foreign trade the three main factors to be considered by the manufacturer are markets where the goods may be sold and general economic conditions in these countries, methods of transporting the goods overseas to their destination, and means of financing the transaction.

For some years the Bureau of Foreign and Domestic Commerce, in coöperation with the Consular Service of the Department of State, has been supplying the information regarding markets and economic conditions, but it has remained for the disturbed conditions in shipping and commerce, due to the war, to develop governmental organizations which are concerned with methods of transportation and the financing of foreign business.

Trade Commissioners

The work undertaken through the Bureau of Foreign and Domestic Commerce, and the Consular Service may be roughly divided into two main classes: that of the trade commissioners, commercial attaches and consuls traveling or located in foreign cities and that of the staff of the Bureau of Foreign and Domestic Commerce in Washington. A feature of American trade promotion, which has not been developed to the same extent by any other country, is the work of the trade commissioners who are investigating the markets for specific groups of American products. These investigations are made by trade commissioners of the Bureau of Foreign and Domestic Commerce who have practical knowledge of the industry under consideration, because specialization has become such an important factor of industrial development in this country that it is impossible to give proper attention to the needs of a foreign market unless the investigator has a thorough grounding in the technique of the industry. These investigators are assigned to a particular country or a group of countries and study all the phases of economic and industrial

development that may have a bearing on the sale of American products. These factors include roughly the general character of the population and its purchasing power, the kind and quality of goods that find a ready sale, the foreign source of supply or the domestic production, proper methods of packing and shipping, accepted principles of sales representation, and the credit terms that must be offered. At present the following market investigations are under way: construction materials and machinery in South America, textiles in South America, furniture in South America, agricultural implements in France, motor vehicles in Europe, leather trade in Europe, lumber in Europe, industrial machinery in France, Italy, and the Far East, jewelry and silverware in South America, electrical goods in Spain and Italy, chemical industries in France, and phosphate rock in Europe.

In addition there are under way investigations of various industries and trade activities that may offer a field for American products, or may assist in the marketing of American goods. Among these may be mentioned the mineral resources of the Far East, the mining industries of Spain, banking and finance in England and Spain, advertising methods in South America, and ports and transportation facilities in the Far East.

Owing to the general disturbance of trade and industry throughout the world as a result of the war, it has been deemed advisable to supplement the special investigations by some general studies, with a view to obtaining comprehensive and first hand reports on the economic situation in the principal countries of the world. These general studies are being made in Belgium, Denmark, England, France, Greece, Italy, Netherlands, Norway, Roumania, Spain, Sweden, Bolivia, Colombia, Paraguay, Venezuela, Dutch East Indies, Mexico, and the Union of South Africa.

COMMERCIAL ATTACHES AND CONSULS

The Bureau of Foreign and Domestic Commerce is permanently represented in foreign countries by commercial attaches connected with the American Embassy or legation in each country, attaches at present being located at Buenos Aires, Copenhagen, The Hague, Lima, London, Madrid, Melbourne, Paris, Peking, Rio de Janeiro, Rome and Tokyo. The duty of the commercial attache is to keep in touch with the larger aspects of the economic and indus-

trial development of the country to which he is accredited, and to submit general reports which will serve to guide American business men who are seeking information regarding foreign markets for their products. It is not the function of the commercial attache to furnish lists of dealers or secure representatives for American concerns. It is their duty to point out significant developments in the economic life of the country to which they are accredited, and to pay special attention only to the larger aspects of American trade, and the general opportunities for strengthening our commercial position in foreign markets.

The details of trade promotion in foreign countries are left to the American consuls who are under the supervision of the Department of State, but whose commercial reports are transmitted to the Bureau of Foreign and Domestic Commerce for the information of the American exporter. In addition to a comprehensive annual report on the trade and industry of his district, the consul makes reports from time to time on specific commodities which offer a good field for the American merchant, or on special opportunities for placing American goods. The consul offers a convenient and acceptable mode of bringing together the American exporter and the foreign importer. From the consul or from lists that have already been submitted by the consul, the American exporter can obtain the names of merchants who are interested in his products, and the foreign importer on his side can be put in touch with the manufacturers of the products he desires to buy. In many cases the consul can place the foreign buyer in direct touch with the manufacturer of the goods needed. In other cases the same result is accomplished by forwarding to Washington information regarding the goods desired by the importer, so that an appropriate notice may be published by the Bureau of Foreign and Domestic Commerce for the benefit of the exporters in the United States.

The home service rendered by the Bureau of Foreign and Domestic Commerce consists in supplying inquirers with classified data that have been submitted by the consuls and the representatives of the bureau, and also in furnishing specific information which can be obtained from the foreign publications on file in the library of the bureau. Among the data that are available in Washington may be mentioned information on foreign tariffs and

trademarks, foreign statistics of imports and exports, and occasionally of production, clippings from foreign journals, and statistics on the trade of the United States. Some knowledge of the tariff system of a foreign country is absolutely essential to the exporter, as on it depends to a large extent the price at which his product can be marketed. If the tariff is high on a particular product, it may raise the price to such an extent that the American manufacturer cannot compete with the domestic manufacturer, or in many cases it may keep him out of the market altogether. The tariff also has an important bearing on methods of packing, because in some countries the duty is based on the gross weight, while in other countries it is based on the legal weight which includes the commodity and its immediate container, but not the case in which the separate containers are packed. Closely allied to tariff questions are those relating to the protection of trademarks, the requirements regarding consular invoices, the regulations governing commercial travellers and their samples, and the import and export restrictions which may be in effect during time of war, or economic transition. Through its files of official rulings and decrees, the bureau is enabled to answer these questions expeditiously without the necessity of awaiting a reply from a foreign country.

In the line of statistics, the Bureau of Foreign and Domestic Commerce is prepared to assist the exporter by giving him both the export statistics of the United States, and the import statistics of foreign countries. The assembling and publication of the statistics of the foreign trade of the United States constitutes one of the primary functions of the bureau, and these statistics offer a good guide to markets that have already been developed for American products. The classification of commodities is being revised so that in the future statistics will be given for many commodities that were formerly included in some general group. Likewise the period of annual publications has been changed from the fiscal year ended June 30 to the calendar year, so that the American statistics may be more easily compared with those published by foreign countries, the greater part of which are on the calendar year basis. In the field of foreign statistics, the bureau is able to supply from its collection of foreign commercial eports the latest available data on imports and exports as classi-

fied by the country concerned. These statistics are of great value, as they indicate the principal sources of supply and the countries with which the American exporter must compete. The bureau has also numerous lists of dealers in foreign countries which have been submitted at various times by American consuls or trade commissioners.

ENCOURAGING MARKETS FOR FARM PRODUCTS

The Bureau of Markets of the Department of Agriculture has recently undertaken work looking to the development of foreign markets for unmanufactured agricultural products. It is planned to send to Europe in the near future several agricultural trade commissioners as permanent representatives to report on conditions and to study the marketing and distribution of American farm products. According to a recent announcement issued by the Bureau of Markets the work will comprise studies on the supply of agricultural products in foreign markets and the export surplus in the principal foreign countries with which the United States competes, the consumption and demand in the principal importing countries, the market preference as to kinds of products and the requirements as to grading, packing, and branding, the channels of trade through which the products pass and the business practices involved, the methods and cost of marketing American and foreign products, methods of financing export trade in agricultural products, export practices in forwarding, storing, transporting and insuring agricultural products, the economic conditions influencing the marketing of American agricultural products, and trade opportunities for American agricultural products. The commodities to be included in the investigations by the Bureau of Markets are grain and grain products, dairy and poultry products, fruits, vegetables, nuts, honey, cotton and cottonseed products, livestock, meats and tobacco.

The control of shipping and the building of a merchant fleet are activities that have developed as a result of the war. Before 1914 the foreign trade of the United States was carried mainly in foreign bottoms and while various methods for the establishment of a merchant marine had been proposed, there was no definite and concerted action looking to the operation of ships by the government itself. The demoralization of shipping was coincident with

the first day of the war. German shipping was swept from the sea within a few days. The development of submarine warfare added to the perplexities and difficulties of the American shipper, because as the English tonnage diminished the English government was compelled to withdraw many ships from their regular runs in order to furnish transportation for supplies of every kind. Our own entry into the war and the critical events of the spring of 1918 before our merchant fleet had been developed to any extent, added to the difficulties of the exporter, as almost every available ship was needed to carry troops and supplies to Europe. During these critical months it was possible to allow our foreign trade only enough ships to import commodities that were essential to our own welfare, and to carry to foreign countries supplies that were absolutely needed.

A recent report by Mr. Hurley states that in August, 1914, the United States sea-going merchant marine of 500 gross tons and over amounted to 1,494 sea-going merchant vessels of 2,706,317 gross tons; on November 11, 1918, the date of the armistice, the grand total was 2,113 sea-going vessels of 5,515,180 gross tons. The total construction in the United States during the war amounted to 875 vessels of 2,941,845 gross tons. The purchases from aliens amounted to 233 vessels of 883,854 gross tons; 66 steamers of 139,469 gross tons removed from the Great Lakes to the high seas, and 31 vessels of 39,219 gross tons were acquired from various sources. Decreases due to enemy action, marine risk, sale, etc., amounted to 1,145,524 gross tons. With the stoppage of shipments of munitions, after the signing of the armistice, a large part of the newly developed merchant tonnage became available for commercial purposes, and as fast as circumstances will permit the Shipping Board is supplying vessels on all the trade routes where such service is demanded. That board is also keeping close track of tonnage movements in all parts of the world, as well as freight rates that are offered by nations that are competing with us in foreign trade. These rates are being assembled by the Shipping Board both for the purpose of determining the effect of the competition of other countries, and to serve as a guide in adjusting the rates on American ships so that the American manufacturer will not be at a disadvantage.

OUR CHANGED TRADE BALANCE

Another development of the war has been the conversion of the United States from a debtor to a creditor country. We have not only taken back practically all of our securities that were held in Europe, but in addition both private investors and the government itself have made heavy loans to our European Allies. Added to this we must take into consideration the fact that the Allied countries in Europe will need enormous quantities of material for industrial reconstruction, and perhaps not for several years will it be possible for them to ship enough merchandise to offset their own purchases. We are, therefore, confronted with an enormous balance of trade in our favor, which results in a rate of exchange which is very disadvantageous to our purchasers, and which is a hindrance to purchase in our markets.

It is generally agreed that extensive credits must be made if we are to take part in the industrial reconstruction of Europe. In order to assist the American exporter in financing his operations, the Act of March 3, 1919 (Public No. 328) provided the War Finance Corporation of the Treasury Department with a fund of a billion dollars which may be advanced to exporters if the exporter is unable to obtain funds upon reasonable terms through banking channels. The detailed method of administering this Act has not been worked out by the War Finance Corporation, but the law provides that the loans may be for terms not exceeding five years, and that the rate of interest charged shall not be less than one per cent per annum in excess of the rate of discount for ninety day commercial paper, prevailing at the time of such advance at the federal reserve bank of the district in which the borrower is located.

The favorable balance of trade which is likely to prevail for some time renders it highly desirable that the American public pay more attention to the investing of funds in foreign securities. The investment of such funds will tend to stabilize exchange, as the proceeds of the loan will be represented by credits in this country, against which foreign importers may draw their bills. These investments will also be of a decided value in increasing our foreign sales as American representatives in charge of foreign property controlled by Americans will naturally purchase their

supplies from American houses if possible. The Bureau of Foreign and Domestic Commerce is paying special attention to this phase of foreign trade development, and is bringing to the attention of investors opportunities to place capital in foreign countries and is furnishing available basic data for the guidance of the investor.

The lack of assistants trained in the technique of foreign trade and the absence of courses of instruction in the subject have been a handicap to many manufacturers who have been endeavoring to build up a foreign department. Costly and annoying mistakes and delays have often resulted from the errors of omission and commission of employes who have not been trained in the principles that are fundamental to business with foreign countries. In order to remedy this the Federal Board for Vocational Education has outlined a series of courses on foreign trade and shipping to meet the needs of teachers who may be called upon to give instruction on foreign trade vocations. One bulletin that has been issued contains outlines of short unit courses on selling methods and practice, the mechanism of foreign trade, exchange credit and banking, ocean transportation, marine insurance, trade routes, foreign tariffs and commercial policies. Specialized courses dealing with selected commercial areas are being developed for the use of students who have mastered the technique and who have surveyed the condition of commerce as a whole. In this work the Board for Vocational Education is working in close coöperation with the other agencies of the government that are interested in the development of foreign trade.

The Problem of Government Control

By Burwell S. Cutler
Director, Bureau of Foreign and Domestic Commerce
and
Louis Domeratzky
Tariff Expert, Bureau of Foreign and Domestic Commerce

AMONG the numerous problems comprised within the rather hackneyed term of "economic reconstruction," one of the most difficult is presented by the liquidation of Government control in business. The task is not confined merely to the abolition of certain war boards or the disposal of Government supplies acquired for war purposes, but involves a revaluation of the political theory of Government control in the light of war experience. While the political aspect of the problem has not as yet attained in the United States the importance attached to it in a country like Great Britain, for instance, there are strong indications that some of its phases may play a considerable part in the political developments of the next few years, and we may therefore regard a discussion of the problem as decidedly timely. The following two informal summaries by the director and the tariff expert of the Bureau of Foreign and Domestic Commerce, of the Department of Commerce, dealing with Government control in Great Britain and in the United States, may prove of some value in the discussion of the subject.

Government Control in the United States

By Burwell S. Cutler

The American Government control of commerce during the war has followed the British policy and procedure closely. In fact it is thought by many to have been a somewhat amateurish imitation wherein it followed the procedure alone, to somewhat unsophisticated extremes, without being founded on the keenly calculated aims of the British elders. For this there is, perhaps, excuse enough found in the prior establishment of a British block-

ade that allowed little or no variation in our freedom with foreign nations, since harmony with the British was to be effected above all else.

From stringent regulations on enemy trading we passed through one paralyzing prohibition after another in the field of international finance, commerce and transportation until, international possibilities being quite exhausted, we laid eager hands upon our domestic utilities with all the zest of a youngster over his first real steam engine.

Where the British laid down rules to serve the set purpose of withholding from the enemy all outside supplies of food, munitions and credit and at the same time permitted exceptions where their own supplies and trade were benefited without comfort to the enemy, the American embargo regulations were rigorously upheld on every occasion by their administrators like priests defending a temple; a policy of enlightened self-interest for ourselves and "war associates" had no standing beside a determination to defend the rule for its own beauty. So far as may be seen now, mere compliance with the British physical blockade against entrance of fats into Germany would have been sufficient to create the only economic strain which Germany admits as being decisive.

When the collapse came she had a fair abundance of everything she most needed except rubber and edible fats and lubricating oil—to which England had allowed her no access up to March, 1917, except when we forced Britain's hand in the way of trade.

Our most effective work was the elimination of pro-German or Austrian firms in South America, where there are left today few substantial merchants who prefer to handle American goods. The native and British houses there prefer merchandise from, and business relations with, other nationalities.

EMBARGO POWERS

The fundamental principles underlying the embargo power delegated by Congress to the President were twofold: conservation of natural resources so that they might be devoted wholly to military purposes, and prohibition on enemy trading. It is obvious that almost any set of regulations could be promulgated in compliance with those two principles since the extent to which

they could be administered was not limited by Congress or by the President who in turn had delegated the power to the War Trade Board.

The diversion of home industry into channels of army and navy supplies was splendidly done by the War Industries Board, taking into account the want of direct power which the Board suffered. It is true that it could supplicate the President any time to commandeer an intractable business concern, exactly as the army and navy did in effect rather often. But as a general thing the Board accomplished a unification of industrial and military purposes by the simple power of moral suasion. The business executives of the country responded fervidly without calling from Congress legislative compulsion such as the British Orders in Council. Those British Orders of 1914–1917 had given to the Prime Minister power to do whatever his Cabinet wished with every factory and utility in the United Kingdom.

Our board helped, as business advisers, to determine contracts, prices, shipping priorities, etc., wherever Government business was concerned. Its advice was followed wherever and whenever the army or the navy chose, the attitude of both Departments being good-natured even when most self-reliant.

FINANCE AND TRANSPORTATION

Perhaps the Treasury had the more difficult task of all, in so far as it tried first to maintain the abnormal gold reserve of the country and simultaneously to force a parity of exchange with other countries. That department was called upon to actuate through the War Trade Board an embargo on monetary metals and credits to the single end of conservation; it had no part in the policy of enemy trade exclusion, although its advice was frequently required. It is not hard to perceive that the Treasury Department was frequently beset by the urgency of releasing gold from this country in exchange for much needed imports, because certain nations to the south of us demanded gold, and gold only, as a return for raw materials which could not be secured from any other part of the world. Altogether, the Treasury was subject to more conflicting obligations than any other department.

The Railroad Administration did not take over control before it was amply demonstrated that habits of competition between

the different systems precluded any chance of unified action. Moreover, they sorely needed an increase of traffic rates beyond what the public would tolerate if decreed by private management. As soon, however, as the Government assumed responsibility the railroad employees pounded the Administration so hard for wage increases and privileges theretofore denied that there was no escape from them, unless a general strike was welcome. We now have Government control of privately owned property, with all the confusion inherent in such a contrariety.

As for our merchant marine, that is owned outright by the Government and consequently its costs and benefits are borne by the entire people through the process of federal taxation. Its delinquencies, if any develop, are visited upon every taxpayer and not exclusively on the investors who put their money into enterprises which they thought would provide them with regular income free from the risk of political exigency.

We have already indicated the forces which resulted in putting rail and ocean transportation into the hands of the Government, and these are, namely, the necessity for higher traffic rates (passenger and freight) and the necessity for an increased wage scale. Neither of these sweeping changes could have been brought about with the consent of the public so long as private management could be held responsible. In other words, the Government was palpably above any criticism on the grounds of selfish profit. The temporary seizure of the cable and telegraph lines is also based on similar considerations, but these would not have been effective in normal times, and the properties were taken over with the express intention of turning them back to private administration as soon as national affairs became sensibly normal.

THE FUTURE

We shall not judge the advisability of a permanent Government control solely on the ground of experience in this country up to date, but we can all see clearly enough the advantages and disadvantages of Government ownership of public utilities as a permanent thing. That in a general way a government would run them for the benefit of the greatest number of people and never for the purpose of unreasonable profit or stock jobbing is conceded by us all. We will even admit that an excess of competition by parallel

lines and activities resulting in a too great overhead cost of operation, can be eliminated by the authority of the Government. It is likewise possible to believe that strikes and all riotous disturbances would be difficult of accomplishment so long as the Government is in charge and therefore obliged to oppose its armed authority for the protection of the properties involved. And yet, on the other hand, we are more than likely to lose under Government administration the exercise of ingenuity and incentive which individuals brought to bear upon our vast railroad systems in the days of their creation. The most effective public ulilities are invariably those which enjoy constant improvement under the spur of ambitious individuals seeking to improve property committed to their personal care. If our lines of communication by wire or by rail or by boat become out-and-out Government-controlled properties, it is inevitable that the executives in charge and the operative force will take on a political character. As soon as that condition is well established we might see as the result of sporadic political upheavals in one part or another of the country a constant change of railroad people in office and the selection of them dictated primarily by political preference. In this process a certain section of railroad or telegraph lines might be taken over bodily by a mob organization, such as the I. W. W. or some other radical group in temporary power, and the entire system would be terribly handicapped, if not paralyzed.

When one puts into parallel columns the advantages and disadvantages of permanent public administration over privately owned properties in these United States and thus creates an account with credit and debit, the balance on the debit side is so unmistakably plain that an impartial man, with his feet firmly planted on the solid ground of historical fact cannot support the idea;—or at least he will say "let us defer the highly altruistic plan until we know what kind of a Government or polity the masses are determined to give us." For no Government can successfully escape from the logical consequences of its own policy if they turn out to be evil, nor can it combat them in the day of repentance,

Government Control in Great Britain

By LOUIS DOMERATZKY

While we may leave to the future historian the dangerous task of determining the extent to which economic factors were responsible for the world war, we do not have to wait for the verdict of history to appraise the importance of such factors in carrying on the war. Likewise we are safe in assuming that the war will bring about revolutionary changes in the economic life of most of the countries, neutral as well as belligerent. Not only has the war affected deeply the business life of the separate countries, but it has also served to bring about a degree of international control and pooling of resources that would have been regarded as inconceivable for probably half a century under normal development.

Perhaps the most striking development has been the overwhelming control exercised by the individual State over the principal phases of economic life. In order to increase production so as to keep the tremendous war machine going the State had to step in and to counteract all the subversive instincts that were interfering with the desired end. In assuming control over production the State was compelled in many instances to guarantee to labor remunerative wages sufficient to cover, or to exceed, the swollen cost of living and even to provide housing and transportation facilities where they were inadequate for high-speed production. There seemed no escape from the duty to limit profits, to fix maximum prices, to allocate materials, to appropriate products, to interfere in every ingenious way with the basic laws of supply and demand, when they appeared inadequate to a concentrated effort in a given direction. And the further the State went into the field of production and distribution the more functions it was forced to take over or control, since a radical change in the management of one plant of industry was found to affect correlated plants or industries. Thus State control, or interference as it is sometimes called by its opponents, was expanding at a rapid rate when the war came to a sudden end, leaving behind it the enormous task commonly referred to as economic reconstruction.

MEANING OF "ECONOMIC RECONSTRUCTION"

The significance attached to the term "economic reconstruction" differs very widely according to the political, economic and social views of the persons by whom it is used. To some it may mean a revolutionary change in the relations between the State and the individual, the upbuilding of an entirely new social structure in which the State shall assume paternal authority over the numerous business and social activities which have not been performed adequately under an ultra-free régime. To others it means simply that the State shall relinquish its new functions assumed during the war as quickly as possible and with the least disturbance to the economic life as conducted on a pre-war basis. Between these two extremes there are naturally numerous gradations. The crux of the problem is to decide just what functions the State should discard or what should be retained and developed to their logical conclusions.

The extreme opponents of Government control who assume that the progress made in that direction during the war will be entirely obliterated and will have no bearing on the after-the-war politics are probably just as far removed from a realization of the real trend as their visionary opponents who construe the war experience as a great step towards the realization of the Coöperative Commonwealth. It is hardly necessary to point out that the final outcome will be determined by political factors at least as much as by economic. In any event it is quite clear from the legislative measures already adopted by some of the belligerent governments that they will retain authority over the distribution of raw materials until monopolies in materials and credits are no longer possible.

NATURE AND EXTENT OF BRITISH CONTROL

Before entering upon a discussion of the merits of Government control in general it may be well to review briefly the principal measures adopted by Great Britain and thus get an idea of the extent and character of control achieved during the war, for this alone will measure the distance we must retrace our way to the pre-war "free economy."

Great Britain fixes our attention first, not merely on account of her dominant financial position among the belligerent coun-

tries of Europe, but also because, strange to say, she has gone further in the direction of State control than the others, always excepting chaotic Russia and Batavia; also she has done this in the face of her traditional commitment to commercial freedom and the proverbial individualism of her economic life. The experience of Great Britain is also of particular importance to us because it is apt to influence our own policy to a far greater extent than the example of the Teutonic countries, since their tendency towards extension of State control had been growing apace for some time prior to the outbreak of the war, and it may be regarded as a natural development of intense centralization in politics. Not so with Britain. Whether her policy may be attributed to a better appreciation of the underlying economic factors of the war and the magnitude of her financial liability to the Allies, or whether it was wholly a result of a socialistic trend unduly accelerated by the national defense, we do not feel ready to decide. There is no doubt, however, about the permanent penetration of State control into the economic fabric of that country.

Adverse opinions regarding the desirability or success of Government control under normal conditions should not blind us to the fact that certain production problems, especially those relating to labor, could not have been adjusted without the assumption by the State of the economic and social sequences of such settlements.

It is assumed by many that this attitude of the State will also have to be maintained during the reconstruction period in order to avoid serious labor and fiscal disturbances. The concessions of labor made by the State in certain industries and services, as in railway transportation, for instance, will probably make a prompt return to private ownership of those utilities very difficult, if not impossible; and we may conclude from the recently introduced bill for the creation of a Ministry of Ways and Communications that the nationalization of the railways has practically been decided upon. In other cases, like the exploitation of the Persian oil fields and the dye industry, the participation of the State has been so conspicuous that it is doubted whether from a political standpoint the Government could step entirely out of those purely industrial enterprises without thorough preparation for the event.

In a broad way, then, Government control in Great Britain extended to all phases of economic life, but was particularly concentrated on public utilities, production of ammunition and other war supplies, including essential commodities for civilian use, especially foodstuffs. Now let us examine briefly the methods of procedure adopted by the British Government in its various forms of control.

RAILWAYS, MUNITIONS AND COAL

On account of their pivotal character in war operations the railways were taken over by the Government on the day following the declaration of war, under the Regulation of Forces Act (1871). The operation of the lines was placed in charge of the Railway Executives Committee of General Managers, under the general control of the Board of Trade, and the general basis of compensation was a guarantee by the Government of the profits obtained during the period immediately preceding the outbreak of the war. Early in 1915 the Government was confronted with the task of dealing with the demand of the railway unions for increased wages to cover the increased cost of living. The Government granted a substantial part of the increase asked for and assumed three-fourths of the cost involved. The concession was regarded as a great victory by the unions and was undoubtedly construed as an indication of the policy to be adopted in the future in dealing with the railway unions. Further increases in the war bonuses to the railway employees was made in September, 1915, September, 1916 and April, 1917, and a far-reaching concession in regard to the continuation of the war wages to the end of 1919 has just been granted by the Government. In accordance with the promises made during the last parliamentary campaign the Government has just introduced a bill for the creation of a Ministry of Ways and Communications, with vast powers for the control of all forms of transportation and communication.

The control or ownership of munition plants by the governments of the belligerent countries was so general that it could hardly be regarded as a conscious political reform in any of the countries. Owing to the shortage of labor and equipment and to industrial unrest the Government took a decisive hand in the distribution of labor, also assuming authority in prevention or

settlement of strikes, adjustment of wages, etc. The Defense of the Realm Act and the Munitions of War Act enabled the Government to take over the control of the private plants engaged in the production of munitions and to limit their profits, thereby removing one of the principal causes of labor agitation, namely demand for a greater share of the apparent profits. There was also a provision for the protection of trade union rules after the war and for a system of "leaving certificates" intended to prevent the migration of labor from munition industries. While these measures were so closely connected with the actual conduct of the war that they could hardly be regarded as examples of deliberate paternalism, nevertheless, some of the principles involved, notably the limitation on profits, might be retained as serviceable for the period of reconstruction; the final disposal of the Government-owned munition plants may give rise to a demand for their conversion to peace uses under the Government auspices.

A decrease in the output of coal made it necessary for the Government at first to restrict the exportation and the domestic consumption, and, later on, largely as a result of the labor disturbances in South Wales, to impose labor adjustments and price fixing. A further threat of labor troubles in 1916 compelled the Government to take possession of the South Wales mines, following which Orders-in-Council of February 22, 1917, authorized Government control over the entire coal-mining industry, which was placed in charge of a new department in the Board of Trade, under the Controller of Coal Mines.

SHIPPING, LEATHER AND TEXTILES

While the requisition of shipping was primarily a measure for carrying on the war, it also had the very important economic function of preventing an undue rise in import freight rates and consequently in the cost of living, Great Britain being almost wholly dependent on imported foodstuffs. Thus a very considerable part of British tonnage was commandeered by Royal Proclamation of August 3, 1914, and a board was set up to adjust the claims of the ship-owners. The Board of Arbitration soon assumed also the function of drawing up approximate monthly rates, which gradually developed into the so-called "blue-book" rates for requisitioned vessels and were considerably below the

market rates. The Government also adopted a system of risk insurance for the vessels not requisitioned. In view of the conspicuous part played by the high cost of living in labor disturbances the Government moved in this way to keep at a reasonable level the cost of imported foodstuffs, since an unrestricted rise in freight rates and no reservation of space for the transportation of foodstuffs had been working to the opposite effect.

The importance of leather and textile fibers for war equipment and the violent rise in prices occasioned by the war demands as well as by the high freight costs induced the British Government to take on the purchase of raw materials in the British Dominions and South America, and also to determine priorities in case of merely civilian demands. Even the production hours of factories using these materials were curtailed in the interest of conservation. It may be said that during the greater part of the war period the middleman was altogether eliminated from the textile and leather industries, in so far as the free distribution of raw material was concerned.

FOODSTUFFS

Since, however, for the army and for the civilian population an adequate supply of foodstuffs had become the most serious problem, the British Government concentrated its attention on a double domestic policy as follows: (1) the assurance of adequate supplies by boat from foreign sources, and (2) encouragement of domestic production by means of guaranteed prices, distribution of tractors, seeds, fertilizer, etc., and by encouragement of small farm holdings.

The first task was to prevent an undue rise in the prices of staple foodstuffs, the importation of which was greatly affected by the curtailment of tonnage. Thus we find that maximum prices for sugar, butter, cheese and bacon were fixed by the Board of Trade early in the war. With the sugar supply from the Central Powers cut off there was a sharp rise in the price and a Royal Commission was appointed in September, 1914, to investigate the situation, to purchase and distribute sugar, and maintain the supply. The Government became the sole importer of sugar and soon took control of the refineries. By fixing the refiners' profit it controlled the price of the refined product. On several occasions the

Royal Commission on Sugar Supply raised the maximum prices for the purpose of reducing consumption, but with comparatively little effect.

In its endeavor to assure a sufficient supply of meat the British Government started by encouraging the increase in the domestic supply. Later on it took over the control of imported meat, at first from Australia through price control by the Dominion Government, and then from the River Plata through requisition of refrigerating space in British steamers trading with Argentina and Uruguay. In this way the Government managed to buy on comparatively advantageous terms for the British as well as the Allied armies. Later on it was found necessary to fix maximum prices for domestic meat. The British Government maintained in the United States an agency for the purchase of bacon, ham, and lard and fixed the middlemen's profits on those commodities.

The methods adopted by the British Government for the control of wheat which was found necessary on account of inflated prices and evidences of profiteering in the milling industry, were more or less similar to those adopted in the case of importers of sugar. The Grain Supplies Committee was appointed for the purpose of procuring large supplies in the United States and Argentina. The Indian wheat crop was controlled through importers appointed as Government agents.

While the State control of the food supply was perhaps more thorough than in any other direction, it is the one form of control least likely to endure as a permanent policy. The Government undoubtedly succeeded in many cases in preventing an excessive rise in prices and profiteering, but it may be doubted whether anything short of a national emergency could induce the people to submit further to a multitude of annoying prohibitions. This, however, does not apply to the measures adopted by the Government for the encouragement of British agriculture, some of which, like the guaranteed price of wheat, will remain in effect for several years after the conclusion of peace and will undoubtedly figure prominently in future political discussions.

With the increase in the difficulties of ocean transportation, the question of increasing the domestic production of foodstuffs and restoring British agriculture came to the fore. Some of the

recommendations of the special committee appointed in 1915 to investigate the state of British agriculture were carried into effect by the Ministry of Agriculture, beginning with an agricultural census and following it up with measures for increasing production from small holdings, providing fertilizer and agricultural machinery and especially tractors, which were acquired in large quantities by the Agricultural Machinery Branch of the Ministry of Agriculture and loaned outright to farmers who were not in a position to buy them. On February 23, 1917, Prime Minister Lloyd George announced the adoption of the most direct measure of encouragement to domestic agriculture, i.e., a system of guaranteed prices for grain, intended to encourage the cultivation of pasture land and to increase the grain acreage. A schedule of guaranteed prices for six years, beginning with 1917 and subject to revision after the expiration of a four-year period was finally embodied in the Corn Production Act, which also contains the revolutionary provision for a minimum weekly wage of twenty-five shillings for agricultural laborers.

SUMMARY

In summing up the British experience with Government control during the war, it may be said that it has entered practically every fundamental part of economic life, that in spite of some of its failures it has been an exceedingly effective factor in the successful conduct of the war, although very severely criticized, especially by the abolished middlemen, and that there is undoubtedly going to be a strong demand, especially on the part of the labor and the socialist element, for the retention of some forms of Government control over certain industries and transportation. The extent to which the British Government will retain control or ownership will probably depend largely on the political strength of the various parties concerned in the issue.

Trade and a League of Nations or Economic Internationalism

By J. Russell Smith

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SOME years ago there was an outbreak of typhoid fever in a Pennsylvania town. The hospitals quickly filled with patients, and still they came. Nurses assembled and gave to the afflicted the usual care, including ice bags on their heads but still new cases came, and panic seized the place. Finally a sanitarian went up-stream and mended a broken pipe which had been discharging germ-laden sewage into the town water supply. The epidemic ended. Its cause had been removed.

The Hague conferences may be likened to parties of nurses with ice bags trying to allay a fever whose cause they did not touch. This is no impeachment of the great and able men who worked so hard in these conferences. The causes of war lie deeper than broken water pipes, and in the stage in which the world then found itself, the various jealous, rival governments would not let the Hague conferences touch war causes. For this reason they failed to touch the problem, as the Great War has shown so cruelly.

The present League of Nations will be no more effective in preventing future war than were these Hague conferences unless it takes steps to remove the temptation to war. Man says he is a thinking animal, but he does not think much. His feelings make him act as often as his thoughts, perhaps oftener. If things keep happening that provoke the war spirit and people are made to think war, its terrible teeth will again crunch us, despite any League of Nations formed at this time. The *spirit* of men during the next twenty-five years decides the fate of any League of Nations. The league must remove some of the causes of war. Unfortunately it cannot remove them all.

The causes of war may be condensed to three:

1. Property—the desire of actual material possessions—lands, colonies, concessions, markets, trade.

2. Preferment—the love of dominion—the sense of greatness and power, the thing which makes men strive for honors and place, the thing to which the writer

of the allegory of the Garden of Eden referred when he had Jehovah give to Adam and Eve *dominion* over everything in the Garden as well as *possession* of all the property.

3. Group Consciousness—the desire for our own particularism and the desire to keep it and spread it, because man is generally sure that his things are best. The Americans wish to continue to be Americans; the English, the French, the Germans, the Japanese, the Hottentots, and all other peoples share this same feeling with regard to their culture (kultur). Moreover, each of them thinks other peoples should accept its viewpoint, institutions and customs.

These three, the desire of possession, the desire of dominion, the desire for our own particularism and the desire to spread it, have repeatedly cursed the earth and given to it the high spots of history, at least the high spots of history as we have taught it for a few decades—the fall of Nebuchadnezzar, the outbreak of the Greeks under Alexander, the creation of the Roman Empire, its crushing by waves of Goths, Vandals and Huns, the Saracen sweep, the arrival of the Turk in Eastern Europe, the conquests of Prussia in Central Europe, and perhaps greatest of all, the brushing aside of the Indian by the European races that took America for their home. The most recent of this series was the attempted world domination by Germany.

Most of the world's wars had been smaller in effort and result than the great world upheavals above mentioned, but it is the same three forces that have made them kill the man, burn his home and carry his children away as slaves.

We must not for a moment forget that these war forces are parts of permanent and enduring human nature, like the instinct to eat and to possess individual property. The question is—can society be organized in such a way that these rational appetites can function normally in the world society as the personal appetites for food and property function normally in an ordered community, while they are so destructive in an unordered community? It seems plain that we must remove some of the provoking conditions. Otherwise, these appetites, repressed too much, will again take maddened humanity on the spree that has been its misfortune in so many past times.

How can we reduce these temptations to war? This article deals with the economic causes of war, group one above mentioned. How do these causes present themselves as specific problems? They may be classified as follows:

A. Interference with the trade of other nations through transit restrictions.
B. The exclusion of people who wish to emigrate.
C. Concessions for foreign investment.
D. Interference with trade by tariffs.
E. Most favored nation clauses.

A. TRANSIT TRADE

The principle of self-determination of peoples and the admission of respectable peoples into the family of nations carries with it the right of access to the public road, just as any citizen anywhere in the United States has right-of-way, after reasonable payment, over any other man's land to the public road. Thus, any inland nationality has the right of untaxed access to the public road of the world, the sea, the highway of the nations.

This is simple. A League of Nations should in its inception be able to remove this cause. There is no good reason why the Dutch should impede, by tax or any other restriction, the free access of ships to the great Belgian port of Antwerp because, by one of the accidents of an age of brigandage which we hope is passing, a little corner of Holland reaches across the river Scheldt, the outlet of Antwerp. The nation that wishes to tax the trade of any other nation whose trade must pass that way is suffering the temptation of the highwayman, and should have no more right to that kind of revenue than the highwayman has to his revenue.

We have a most happy illustration of the proper working of this matter of access in the trade of the United States and Canada, which alternately flows from both countries, down the St. Lawrence in summer, and through the ports of New York, Boston and other Atlantic cities in the winter. We have, indeed, a keen and wholesome rivalry, the United States spending a hundred million dollars to make an Erie Canal that would tempt the Canadian trade to New York, while Canada builds canals to tempt American trade to Montreal. Similarly Germany should be served, by two rivals striving to serve her cheaply and effectively: Holland with her port of Amsterdam, Belgium with her port of Antwerp and her canals reaching to the Rhine.

The trouble in connection with this matter of the trade is that it has been tangled up with its abuses; namely, transit dues or their possibility, and the preparation for war. A peaceful Germany has no more to fear from the transit of her trade through

Holland and Belgium than we have to fear in the transit of our millions of dollars' worth of trade every summer down the St. Lawrence.

B. EXCLUSION OF PEOPLES

This is almost like driving people out of a region. It is the greatest menace, the fundamental land question, the temptation to war which we can only hope to mitigate. We cannot hope to end it. Land hunger is the greatest of all causes of war and it will continue as long as some peoples have much more land per person than others. In June, 1914, Isaiah Bowman, Professor of Geography in Yale, pointed out to a class studying the geography of Europe that the population on the French side of the Franco-German boundary was small and stationary, that the population on the German side of it was large and growing, and "as sure as you live, there will be war across that boundary some day from the sheer breaking of the human dam on the populous side of the line." Dr. Bowman was not speaking as a student of politics. He was speaking as a student of geography and of human nature, and he was speaking of a temptation to war which the League of Nations makes no pretense at removing. Instead, the League of Nations, in the very essence of its task, hopes rather to fasten this temptation continually upon us. Every nation is to have its home, the chance to develop its own dear particularism. There shall be China for the Chinese, Poland for the Poles, England for the English, Armenia for the Armenians, Japan for the Japanese, Australia for Australians, America for the Americans. Herein lies the dynamite. The best we can hope to do is to keep fire away from it. It is dynamite, and it will be dynamite for indefinite generations, as long indeed as one people has much greater opportunity per man in its territory than a neighboring people has. At the present time any people in the world has become a "neighboring people."

Taking a long view, we may perhaps say that the greatest menace to permanent world peace lies on the Pacific, where we see the love of racial particularism causing the white peoples of the United States, British Columbia and Australia to exclude the Chinese. This is done for the most natural of reasons. With their great numbers, their simpler standard of living, their low wages, their

terrible diligence, the Chinese have shown that they can come to California and buy the whole of it, convert it into an outpost of Mongolia which may spread no one knows how far. The American society cannot stand side by side with the Chinese any more than Indian society could stand side by side with the eighteenth century colonist. So we stop the Chinese—while they are weak, in the military sense.

The thing that has smashed up the world repeatedly from Nebuchadnezzar to William II is still with us—land hunger, and it probably can be sharper across that narrowing Pacific with those hundreds of millions of hungry Chinese crowding their land to the water's edge, and those mere handsfull of white men in Australia, British Columbia, and California with more land by far than they can use even on Western standards, almost a kingdom apiece, and still keeping the Chinaman out. And the very essence of racial individuality is that California shall be for the Californians, Australia for the Australians, British Columbia for the British Columbians, and the Chinese all piled up and no place to go.

The tendency toward avalanche is stronger here than it was across the German boundary, but the Chinaman is not at present organized, trained, disciplined in war, taught by generations of war talk, or tempted by the lust of world dominion. Due solely to our interference with him, he is making a good start in the development of the Western military system, and we must decide whether we are going to make him keep on by imposing on him because he is unorganized. Perhaps he must continue to prepare for war because of the fundamental land hunger. Perhaps he can be content to stay at home with his hunger for the ownership of these lands if he can get their produce through free and unrestricted international trade, and through free, equal and safe opportunities to invest in their undeveloped resources.

C. Concessions for Foreign Investment

Many economists say that the real, deep, underlying cause of the recent great war was the struggle for concessions, for the privilege of foreign investment. They say that England and Germany had developed their own home resources quite fully, that they had surplus capital and they were ready for more fields to develop, provided higher interest rates could be secured, and

that here was the real cause of the rivalry that finally produced the explosion.

The well-known rivalry of the powers, particularly England and Germany, for the privilege of developing railroads, mines, irrigation works and other enterprises between Constantinople, Bagdad and the Persian Gulf is a very well-known sore point in history, and is a good example pointing to the force of the factor as a war maker. It is a kind of corollary to the land hunger idea—really a modernized form of it. Through the stocks of a corporation we bring the profits of the foreign land home to ourselves. Thus we may own it as property (economically) without the necessity of owning it as a government (politically), although the concession process is a common way of colony making. The concession for foreign investment is one of the things which the League of Nations must control if it expects to endure.

During the present administration our State Department has set two splendid examples for the management of this question. In 1913 the financiers of six nations, five European and the United States, arranged a so-called six-power loan to China for the building of railroads and the development of other industries. Our State Department at Washington examined the conditions of this loan and told the American financiers who proposed to advance the money that they would not help them out of any difficulties with the Chinese government arising from this contract, because the administration thought the conditions of the loan too hard; in other words, that they were not fair, that they were dishonorable; that we, the government, would not be a party to it. The American financial interests were very indignant and said many hard things about the government, but they did not take a part in the loan.

In 1918 another group of American financiers brought to the State Department another financial agreement with Chinese interests. This agreement was carefully examined by the State Department, which gave its O. K. The loan was made. The idea is that the assistance of the government can be the more certainly expected in case the Chinese treat the investors in a way that they think is not fair.

We may call this a case of high class dollar-diplomacy. The name, dollar-diplomacy, has for some time been given to foreign

relations in which the diplomatic side of a government aided the investing and business enterprises of its citizens abroad, rather than leaving those matters entirely with the governments and peoples of the foreign countries. There are many good reasons why the dollar-diplomacy must in some way continue. There are even more good reasons why it must be subject to control by some set of rules made by persons with a sense of justice rather than a sense of greed. The foreign concession today is one of the greatest opportunities open to man for the exercise of greed with little check. There is almost no limit to the concessions that a group of promoters could get from a so-called government in Siam, Haiti, Nicaragua, or Venezuela. In Haiti they have often had two or three revolutions a year, with two or three different adventurers in charge of the government for a few months. The record of these men would usually make them criminals in the United States or any European country. Some of these cutthroats, with all the machinery and sanctity of a fully established government, could issue concessions involving the ownership of lands, the development of mines, the monopoly of street railways, water works, gas works, the whole list of so-called public service enterprises. He could take his first payment (or his bribe money) and flee, and live abroad in comfort the rest of his days as many have done, leaving behind him a contract in the name of government which, if backed by the warships of the nation whose subjects got the concession from the cutthroat, might be worth ten or a hundred million dollars, and make semi-slavery for generations of men.

These opportunities will continue. The Monroe Doctrine will probably leave tropic America nominally free, so that for a long time wonderful concessions may be secured under conditions that bear some unfortunate resemblance to those just described as possibly occurring in Haiti.

We are entering on a new epoch, the epoch of syndicated exploitation, which is about to succeed the era of merely corporate exploitation of resources. Strong groups of capitalists in England, France, Germany and the United States are organizing for the export trade and for foreign investment in a way that promises to be almost imperial in its power. Our congress recently passed the Webb-Pomerene bill which deliberately authorizes Americans

to form organizations, to do abroad in the foreign trade things which we have forbidden at home, because we do not think them proper and fair here. To match this, the European export organizations are of a scope and power never before seen.

We can almost think of them as little nations, except that they are international in their field of operation and are strangely potent in their equipment to stir up trouble between the nations. Look for a moment at one of these combinations. In its many associated corporations it represents steel mills and several kinds of factories, railroads, an export firm, a dock company, a warehouse company, a steamship line, and in countries beyond the Equator, import warehouses, import companies in several different ports, a great series of banking houses, cattle ranches, lumber companies. To make profit on the whole, it may easily operate some of its branches at a loss. It may do banking under such favorable terms that no other bank can be established except that it too shall be operated at a loss; the steamship line may be operated at a loss to keep out other steamship lines; yet the whole is making profit. Altogether it may be considered as a wonderful example of coöperation on its operative side, but an amazing engine of competition when it comes into strife for the possession of markets, franchises, and land concessions abroad.

The old East India Company seems to be coming back to life with three-fold power. This company used to monopolize the trade of kingdoms. It also governed and made war. It was indeed a kind of commercial-military-empire company. These new foreign trade and exploitation syndicates will control far more actual resources than the old East India Company. This does not look toward peace. This is the strong navy party. They want it to back up their claims when they come into conflict with rivals or so-called governments abroad. The morning papers of this, the 31st of March, report conspicuously a splendid example. The Mexican government admits granting to certain Japanese interests a large tract of land in lower California. For many years the same tract of land had been owned by a group of American capitalists, but the Mexican government claims that their concession ended in 1917. Perhaps the Mexican government was guilty of confiscation in the ending of that concession in 1917, perhaps it was not. Perhaps the American capitalists who

originally got the concession were guilty of real violation of good business ethics, perhaps they were not. Perhaps the Japanese who got the concession were guilty of the violation of good business ethics, perhaps they were not. But in any case, the situation is one in which we can easily see the possibility of three kinds of trouble:

First, between the United States and Mexico.
Second, between Japan and Mexico.
Third, between the United States and Japan.

If the American capitalists who may claim that their land was confiscated are to get any justice, they must under present conditions get it from the Mexican people, through the Mexican government, with the aid of the United States government. It is perfectly natural that they should be a strong navy party, a strong foreign policy party, quite natural also is the claim that foreign capitalists operate both governments and revolutions in weak countries. We must remove the settlement of this kind of claims from the national field to the League of Nations. We cannot risk a recurrence every three months of such causes of friction, particularly when we consider the size and power of manufacturing-export-investment organizations as they will probably be operating ten, twenty or thirty years hence, when the stupendous plans of the present have been worked out to use the appalling machinery with which man has strengthened his hand.

This is peculiarly dangerous because we must not forget that some one controls even in a democracy. The control of government policy goes most naturally to those groups that can most easily organize. The manufacturers, the traders, the financiers, are the natural masters of this art. This means a growing national policy for "safe" foreign markets, best secured of course in countries which "we control."

The mandatory idea in the League of Nations has great possibilities here. Under the mandatory idea, Australia, acting as the agent of the League of Nations, may govern what has been German New Guinea, leaving its trade, commerce and investment opportunities equally open to all the peoples of the world. The idea needs to be carried further. The League of Nations should control and protect international investments. If the citizens of England felt that they had a grievance against a dictator in Haiti,

who after having won a successful civil war, proceeded to demand forced loans from the railway company above mentioned, as they have a habit of doing, the old system was for the British (French, German, etc.), wherever they could do it, to send in their warships, bombard, blockade, or take other such steps as were necessary to bring what they, the intervening government, thought was a fair settlement. By this means have all empires grown, because governments found themselves at the end of such interventions with their hands on land which they have not yet seen fit to let go.

It would be much better if the League of Nations' Court of Claims should hear the case with a speed resembling a police court, pass its opinion, and have it enforced by the League of Nations, either directly or through a mandatory. Nothing need be done more than boycott the offending country by all the countries of the world. No military power whatever would be necessary. Not a shot need be fired, but the Haitian dictator would of necessity mete out fair treatment to the foreign concessionaires—and what is of equal importance, the foreign concessionaires would also treat the Haitians fairly.

Such a policy on the part of the League of Nations would almost certainly mean that the League must prescribe conditions governing concessions between the people of one country and those of another. Concessions would doubtless be examined by the league just as the Chinese concessions of 1913 and 1918 were examined by the American State Department, and approval given or withheld. If the approval was not given, the support of the league could not be had, and the dictators of Haiti would in all probability feel themselves free to make exactions, so that in a short time we might expect all international concessions to be registered with the League of Nations before anyone would be willing to risk money back of such an investment.

If the League of Nations is able to do anything, it seems reasonable to think it could do this with ease and thus remove two things: the temptations of the big nations to make war on the little nations; and second, reduce the rivalries between the big nations and thus greatly reduce the desire for war. It would be maintaining a real open-door policy.

With such a policy removing land monopoly, we would enter upon a new period of plenty. As a matter of fact, the resources of

the world have scarcely been touched. This is especially true of the tropics, the largest of the zones, and there is enough of untilled land, undug mineral, uncut forest, uncropped pasture, to absorb the capital of Europe and America for many decades to come, and to build up a trade many times as great as that of the present, with large exports, and still richer imports, for all.

This offers great opportunity for quick increase in wealth and comfort in the temperate zone. The trouble with tropical development in the past has been, in addition to the climate, the lack of law and order which made two things: first, an extortionate exploitation in some cases, and a great insecurity in others. The above mentioned plan of insuring foreign investments against the chance of international friction will also do much to increase their financial security. These advantages in combination with open markets in the temperate zone, will give us a surprising increase in our much prized tropical produce, such as chocolate, rubber, sugar, spices, meat, bananas, tapioca, sago, and the many other desirable products of which a developed torrid zone might produce such stupendous quantities—enough for us all.

D. INTERFERENCE WITH TRADE BY TARIFFS

Free trade or war! That is a choice that faces the world sooner or later. We must of course go on as we are for a time, and changes must be made gradually, by evolution rather than revolution. If we insist in keeping out the persons of those who wish to emigrate, the avalanche *may* break, despite any alternative that one people can offer to another. If we insist on keeping out their goods as well as their persons, it is safe to say that the avalanche *will* break and again pour war over the world—a worse war ten times over than the last one. It is quite possible that a future war may take the form of the extermination of peoples by the gassing out of millions—clearing the land ready for the conquerors —Armenian massacres done more scientifically.

With land hunger permanently clamped upon us, we cannot expect fifteen or twenty strong, energetic and growing peoples to stay permanently at peace if such episodes as the following continually occur to raise friction, and make people wish to own a neighboring country so that they may trade with it. For ten years the United States freely imported Canadian produce, then

suddenly enacted a tariff that almost prohibited it. Mills closed, people lost their jobs, villages and towns declined. How did Canada feel? She felt sore, as did Germany when our McKinley tariff shut off her exports to this country. The Germans of course knew that if they had owned the United States their prosperity would not have been disturbed. Nations cannot keep on making each other think such thoughts and also keep the peace.

If we cannot win international free trade at a reasonably early date, we should give up the League of Nations idea and prepare for the continuation of wars in the future as one of the plagues of the earth, as past generations have looked forward to them.

1. FREE TRADE, LOCAL MINDEDNESS AND NATIONAL WEALTH. Every political economy proves that international free trade is the surest way for the people of the earth to enrich themselves. Yet the manufacturers of every country want a protective tariff, and almost every nation of the world has this policy in greater or less form. Why is this piece of truth, accepted by nearly all thoughtful men, contradicted by a world-loved practice of nearly all business men? There are three reasons: one is a mistake in theory, another a difference in point of view, and the third our inherent love of special favors.

The manufacturer who wants a tariff, wants it for his produce only, although he may adopt the plunder-bund idea and help others get it so that they may all have it. In its essence, however, the tariff is a local question, a kind of personal question—a clear financial advantage to the group favored by the tariff. On the contrary, free trade is a *national* question. Men think of themselves personally first and nationally last, if at all. If he thinks of *his industry*, a tariff is profitable to him. To anyone who will take the trouble to think nationally rather than locally, free trade can be seen to be an advantage. One of the difficulties in thinking nationally on matters of trade seems to arise from a peculiar inability on the part of the average mind to see the simple fact that trade consists in the exchange of goods. That statement seems so simple that we should expect every child to believe it, but the fact is that almost no nation believes it. Any manufacturer in almost any nation can make a crowd tremble by telling them of the danger that will come to them if we allow the import of produce made by "pauper labor," the term being applied to the

peoples of nations who work for less wages. The next point he never seems to see, namely, how can we pay this pauper nation for its produce? There is only one way. We must pay them with other produce, the output of our own industries. But the unfortunate point is that the man who is talking about the "pauper labor" may not be able to compete under free trade. It might make him change his industry.

It is perfectly true in any tariff country that there are industries that cannot survive the competition of some other countries. The chief capital stock in political trade of the man running such an industry is that pet term "pauper labor." The facts are that their produce may be more cheaply produced in some other country, and paid for by the export of some other kind of article from their own country—that local question again—this time the shift of prosperity from one industry to another in the same country—from a wasteful industry to a sound industry. But it gives a real and genuine fear to all those who are engaged in the industry that cannot compete.

The people of the United States, with wages at two to five dollars per day, cannot import goods from China, with wages at twenty cents a day, without exporting something to pay for it. It is a national enrichment for us to buy the produce of what some call pauper labor, because we get goods we need and use, pay for them in other goods that we have, and, therefore, the import of goods stimulates the export of goods.[1] If one will take the trouble to think nationally, he will see that there is no escape from that sentence. The facts are that while the world is struggling to think internationally in terms of peace and war, perhaps the chiefest block of all in the way of advancement is the inability of the average man in America and elsewhere to think even nationally on the matter of foreign trade. He still thinks personally. He does business personally. Yet the greatest problem of his life

[1]The above statement, of course, needs the modification that these conditions may be temporarily suspended by international borrowing and lending. Thus for the period of the war the United States developed an unheard of export trade because we postponed the receiving of imports. We took promises to pay. We sent England and France billions of dollars' worth of war supplies and took in their place billions of dollars' worth of promises—bonds, promises to pay money—which they can only obtain by sending goods at some future time, and now France is lamenting that she doesn't see how she can pay her debts if we adopt prohibition and therefore refuse to take wine, long one of her chief exports.

requires that he shall suddenly think nationally and also internationally.

2. THE POLICY OF PROTECTION. The protective tariff has two reasons for being that are recognized by economists, and three reasons that are recognized by the average citizen of the United States.

(a) To start and protect an infant industry.

(b) To prepare for war by giving a nation a great variety of industries necessary to supply an army.

(c) To raise wages in the country having the protective tariff.

Let us examine them in order.

(a) *Infant Industry.* It is often necessary for an industry to receive aid during the period of its start in a new country, and protective tariffs have started many such industries. This need will arise in the future. Fortunately it can be met in a better way, namely, a cash bounty. Thus, if we import fifty million dollars, worth of product A, and put a 20 per cent tariff on it, we tax the users of that product ten million dollars at the point of import, and perhaps twenty million dollars by the time this tariff element of the cost has been passed on through the percentages of profits of importer, jobber, wholesaler, and retailer. Thus, the 20 per cent tariff on the fifty million dollars' worth of imported commodity A adds twenty million dollars to the cost of living in the United States, when perhaps a million dollars paid as bounty to the founders of the industry would enable them to develop it to full technical development, and enable it to compete with foreign countries. If it cannot permanently compete, why have it? It will always be an expense to the nation, making things at a greater cost than they can be bought elsewhere.

(b) *Preparation for War.* We may need an expensive and costly industry if we keep the concept of national war. If we are preparing for war, the protective tariff may perhaps be a part of the general policy, although the bounty system will generally be found less expensive and therefore more effective. But the League of Nations, if it is of any value at all, will remove this necessity for industrial completeness as a preparation for war. It proposes two very definite and very vital measures in this direction:

(1) One is the manufacture of munitions by government, so that the Krupps and other munition makers will remove their evil presence from the politics of nations and the foreign policy of nations. Thus private industry will not have to be depended on for munitions.

(2) Economic Aid in War. If the League of Nations succeeds at all, the free trade nation will be better off than the protective tariff nation because it will be richer, and, therefore, more able to buy munitions and war supplies from the other nations of the world, which will rush to its assistance. England in this past war was a fine example of this.

If, however, a nation is preparing to upset the league and wage war against it without the assistance of trade with other nations, the policy of industrial completeness, perhaps through a protective tariff, is clearly to be recommended. In fact, if I, a lover of peace, were advising such a nation, I should advise them to adopt the protective tariff rather than the bounty method, and they would, therefore, enter the contest in a weakened condition because of their relative poverty.

(c) *The Raising of Wages.* The idea that the protective tariff raises wages is a widespread belief of the personal, local mind, and doubtless one of the great menaces to world peace. It is a matter of record that wages in protected industries in the United States are often much lower than in others that are unprotected. Therefore, the wage argument must presumably be that wages in general will rise through protection. From the theoretic standpoint, to the person who will think nationally for a few minutes, it must seem plain that the nation producing the greatest amount of wealth day by day can pay the highest wages. It seems equally plain that if a protective tariff makes us grow bananas at home in greenhouses, we will have less for our labor than if we imported our bananas from Guatemala where they grow under the warm sun, and paid for them with wheat, corn and pork that we grow out of doors under such sun as we possess, and with machinery from our good factories. It is difficult to find anyone who objects to the above reasoning with regard to the banana. It is merely a strong case, of which every industry that cannot compete with foreign countries is merely another case in principle, although rarely in degree.

So much for the theoretic side of the relation of wages to tariff. Millons of men in America will point to the perfectly correct fact that we have in the United States a protective tariff and high wages. Therefore, says the local-minded man, the protective tariff has produced the high wages. Such men should send a commission to Portugal, a country which has a higher and more general tariff than the United States, and where men get fifty cents a day, American gold, and pay double our prices for bread, meat, clothes and machinery, and as a consequence a large proportion of the people live on cold corn bread and boiled cabbage, with rarely a taste of meat, and go half naked.

The great factor setting the wages of any country is the opportunity for production in that country—natural resources. In normal times it is true that free-trade England has slightly lower wages than protectionist America, but the cause of this difference is to be sought, not in tariff policy, but in natural opportunities per man in the two countries. In the United States we have about thirty people per square mile. England has six hundred. In this country we bore a hole in the ground and petroleum spurts out of it. England must import her oil. We go out into vast expanses of forest, produced by nature, cut down the most wonderful saw-logs to be found anywhere in the world. England had used up her forests in Shakespeare's time. We have the chief cotton fields of the world. England must import her cotton. We produce three-fourths of the world's copper. England must import her copper. We dig horizontal burrows into Pennsylvania hillsides and bring out hundreds of millions of tons of the best coal. England must dig deeper for poorer coal. We have vast wheat fields and the king of grains, corn, and a billion bushels of oats per year and the greatest herds of swine. England must import from us pork, oats, wheat, corn. Is it any wonder that her wages are a little lower? If she hedged herself around with a high tariff, she would be as hungry as Portugal. Instead, having a lower price level because of this free import of nearly everything, there is surprisingly little difference in real wages in England and America.

It is undoubtedly true that the transfer suddenly, or even gradually, to a free trade basis, would cause the decline and even disappearance of some industries in all tariff countries, including

the United States. This must always be an appalling thought to people engaged in those industries. Perhaps, with their special privilege, they should take the position of the drafted soldier who sacrifices for the public good. Perhaps people in such glass-house industries have a right to some reimbursement through their transfer to other industries by the coming of free trade. If so, it would be much better for us to contribute through taxes to a fund of billions for this purpose than to contribute our equal fund of billions, as we do every year in the United States, to the continuance of the impoverishing, war-breeding protective tariff.

The Chinese and Japanese are certainly not contented with their present exclusion from the United States. They are certainly not contented with tariffs that prevent them from getting the profits of trading with us. Certainly they will be better satisfied and the danger of war will be reduced if they can at least freely get the produce of the forbidden lands. In the end imports and exports balance. Let the Pacific ships take to their treeless plains the cargoes of lumber from our Western mountains, and of cotton from our Southern fields, and of machines from our Eastern factories. It will mean prosperity and wages in the lumber camps and the young forests, in the Southern cotton district, the Eastern mill town. And when in return the so-called "pauper" goods come back, let us remember that goods are good. They are the object of trade.

Most of our business men seem to ignore the well-known fact that our greatest trade is with manufacturing nations. England and Germany, the two nations with the most developed manufactures, had an enormous trade with each other before the war, and they were respectively our best market and our second best market. Together they took $939,000,000 worth of produce, nearly half of our total export, while China still undeveloped, with twice as many people as England and Germany combined, took $24,000,000 worth of goods from us. It is difficult to imagine how greatly our exports to China would jump if we could make the Chinese a manufacturing nation, raising their standards of living, their purchasing power, reducing their hours, persuading them to eat a great variety of food, use more soap, wear modern clothes, carry Ingersoll watches, listen to the phonograph, talk on the telephone, sleep in metal beds, get up in the morning by alarm clocks, and

run about in automobiles, meanwhile joining the Union and improving shop conditions.

While I have used the Chinese and Japanese as examples, because they are the most extreme, we have at the present moment a widespread demand for the checking of immigration from all countries, which means of course that we make half the world yearn to come to us and to resent this monopoly of American opportunity for the Americans. They, too, need to be mollified with American goods, if they cannot have American homes. Fortunately free trade with them will be profitable. Even if it were unprofitable, it would still be a duty just as we think a navy is a duty. It is indeed fortunate that so great a duty is also an avenue of profit rather than of loss.

3. THE PREFERENTIAL TARIFF. This is but another kind of protective tariff. For example, England and Canada make themselves into one tariff unit rather than two. There is no essential difference between these two kinds of tariff in their economic and political aspects. It is merely one of degree. It is not likely that this Canadian tariff would ever have been made but for the fearful injuries that have come to Canadian industry through the sudden shutting off of the American market by some of our tariff laws.

4. MAXIMUM AND MINIMUM TARIFFS. This device is merely one more detail in the general effort to get particular advantage through tariff legislation. It has no fundamental principle different from other tariffs, and, therefore, merits no particular discussion.

5. ANTI-DUMPING TARIFFS. One kind of tariff needs to remain, even in a free trade world with a League of Peace—the anti-dumping tariff. This is merely the international extension of a policy that has been already adopted in some of the American states. The evils to be remedied by such a law are of two kinds:

(a) *Demoralization of Trade.* A company like some huge American enterprise might supply the local market with plows, selling for twelve dollars each and costing six dollars. Some season it has a thousand plows left over. They cannot be sold in the home market without reducing the price to nine dollars and demoralizing the price. They could be sold in Portugal for nine dollars, with two dollars profit, and the sellers would have their

old markets undisturbed, but the Portuguese plow manufacturers would have a very dull season, and perhaps close their plants and throw people out of work. Therefore, some nations, especially Canada, probably because of her nearness to the United States, have made anti-dumping laws, which require that produce shall not be sold in Canada for less than the same produce sells in the home country. This is needed and it can scarcely be considered as a provoker of war.

(b) The second evil that such an anti-dumping law, properly enforced, would remedy, would be attempts to kill a young industry in a new country, as for example, German dye plants destroying the market of a new rival in some other country by selling dyes at less than cost until the rival gave it up. This is the old, and well-tried method by which the trusts have risen inside of many countries.

E. THE MOST FAVORED NATION CLAUSE

Many treaties contain a clause providing that the country making the treaty shall have the same advantages in trading with country B as country B shall at any time extend to country C, or any other country. In other words, the first country shall be treated under the same conditions as the most favored nation.

If there is free trade, the whole, most-favored-nation business, so far as trade is concerned, seems automatically to go by the board. It should go.

In conclusion it may be pointed out that an effective League of Nations offers three ways of greatly increasing the trade and wealth of the world:

First, by controlling and insuring international investments so that they may increase and become the basis of industry rather than the basis of dispute or parts of great military schemes.

Second, by the reduction of armaments and military service, men will be left free for education and industry.

Third, by removing the fear of war and the necessity of private industrial preparation for it, a successful league opens the way for the gradual adoption of free trade, which is alike a promoter of peace and a promoter of wealth.

Economic Factors in the Maintenance of Peace

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THE immediate object of the war has been fully attained. The danger to liberty and democracy from the attack of the Central Powers has been effectually overcome. It is now our task to establish conditions which, so far as may be humanly possible, will remove the danger of future conflicts between the nations. Territorial changes on the basis of independent nationalities will remove grievances which might endanger the future peace of the world. The establishment of democratic governments throughout Europe and the discontinuance of secret diplomacy will do much to eliminate causes of trouble which spring from personal ambition, and flourish in an atmosphere of intrigue.

These political changes are necessary if a peaceful world is to be established, but very much more is required to accomplish the end in view. Economic causes of international strife would remain, and these causes may well prove an even more serious menace to the peace of the world than they have been at any previous period in the history of civilized peoples. At least four influences will be present tending to embitter international economic relations. These influences, arranged in the order of increasing importance, are: (1) the intensification of national sentiment which is the invariable consequence of war; (2) the increasing size of the business organizations conducting foreign trade, transportation and finance; (3) the urgent needs of many countries during the years immediately following the war; and (4) and by far the most important, the technical requirements of modern warfare, which involve the use of the products of a great variety of highly developed industries.

Economic Causes of International Strife

The intensification of national sentiment resulting from war creates an atmosphere in which extreme measures of a nationalistic character find ready acceptance. This sentiment tends to neutralize the effects of peaceful impulses which experience with

the burden and follies of war naturally tends to strengthen. With the lapse of time, the attitude of extreme nationalism will become tempered and subdued, but in the immediate future it will give a semblance of merit to extreme national aims.

Tendencies of this sort will be strengthened as a result of the increase in the size of the business trading unit. Military exigencies have greatly enlarged the range of governmental economic activities and have also tended, in many branches of industry, to a high degree of concentration in organization and in management. After the return of peace, most of the foreign trade of each country seems likely to be conducted by a very small number of very large business organizations, which will combine transportation and finance with production and marketing. It is even possible that governmental agencies may be employed in some instances, and doubtless there will be an increase in governmental supervision. Foreign trade will, in these circumstances, take on much more of the character of a national activity than when conducted by numerous individuals and companies. Unrestrained and unfair competition, which formerly merely occasioned bitterness between individuals of different nationalities, is likely to occasion friction between countries.

A bitter struggle for foreign business during the next few years is anticipated by many. If such a struggle develops, and if it is reinforced by governmental assistance in the form of shipping subsidies and the control of mineral resources for commercial bargaining purposes, good relations between countries will be subjected to most severe strain, and especially the danger of international discord over economic matters will be particularly great during the years of reconstruction following the war on account of the urgent rehabilitation requirements of many countries. These needs must be satisfied in an equitable fashion if serious discord is to be avoided. The scanty supplies of essential raw materials must be distributed fairly and at reasonable prices. The world's stock of gold, if handled graspingly, will be an inadequate support for the huge credit structure which has been reared upon it during the course of the war. The United States has acquired an inordinately large share of this gold, much of it coming from our associates in the war before we became a belligerent. It should be regarded as a trust fund, to be used in such a fashion as will best

serve to support the credit structure, not only in this country, but throughout the world. To attempt to acquire by its means a dominating position in the money markets of the world is perhaps an attractive policy from a purely national point of view. If we are honestly desirous of maintaining peaceful and friendly relations with other countries, such a policy should not be given a moment's consideration.

DANGERS OF FRICTION OVER SHIPPING AND COMMERCE

Among all of the various matters which may occasion friction during the next few years, those arising out of the shipping situation seem likely to prove the most serious and the most difficult to handle in an equitable fashion. As a direct consequence of the war, a revolutionary change has taken place in the tonnage of ships under the flags of the different maritime nations. Japan and the United States have greatly increased their tonnage. France and Scandinavian countries will have a much smaller number of ships, while the tonnage of Great Britain will also show a marked decline. The present deficiency in shipping may in the course of a few years be followed by an equally marked excess. In either situation, most serious difficulties will be encountered if shipping policies are determined primarily with reference to selfish national aims. In ocean transportation, equality in service and rates accorded the shippers of different countries, similar to that in domestic railroad transportation, is wise economic policy. Foreign commerce, stimulated by special rates, does not rest upon a solid foundation.

The United States, during the years immediately following the war, is threatened with no diminution in the opportunities for expansion of its industry. This is due in part to our late entrance into the war, but even more to the wide range of essential materials which we produce. The needs of our associates in the war, together with those of neutral, and also of enemy countries, will furnish opportunities for aggrandizement on our part, if we should press the advantages of our position to the utmost. To do so, would certainly give rise to deep-seated distrust and hostility and they would be deserved. The fundamental objects of our participation in the war were not national objects. The needs for supplies of our associates upon the return of peace, are of a pressing

nature, analogous to those which gave rise to the common law of obligation imposed upon those engaged in rendering public service, to serve all at reasonable rates. The same policy should mark the period of rehabilitation in the economic arrangements between different countries, and especially, owing to the strength of its position, the policy of the United States. We should make it perfectly clear that government assistance will not be extended to further endeavors to acquire, at the expense of our Allies during the years immediately following the war, a dominating position in lines of business in which we did not hold such a position in the past. In the long run, a policy of this sort will be conducive to the development of the country in the most desirable and profitable direction. Economic activities, stimulated by the temporary predicament of our associates and even of enemy countries, cannot be expected to manifest a capacity for large and continued expansion.

Although there will be no exact return to pre-war conditions, there is little evidence in support of the view that the war will occasion revolutionary changes in the ability of different countries to compete successfully in foreign markets. The effects of the war on foreign trade may be great at first, but in the course of time deep-seated permanent influences will shape the course of our foreign business. Markets acquired during the abnormal years following the war will rest upon a weak foundation unless it is clear that they are markets which would presumably have soon been developed had the world remained at peace.

Up to this point international economic relations have been considered exclusively as purely economic questions. This has been done designedly in order to emphasize the view that when judged as purely business questions, there is no fundamental divergence of economic interest between the nations. To find instances of irreconcilable conflicts of economic interests between nations, it is necessary to go back to the pastoral stage of social development. In that stage of society, the number of people who can live within a given area is strictly limited. This is not the situation of civilized peoples. Thanks to improvements in the arts, especially in transportation, the limits upon the population of any given area are highly elastic. The economic advantages which a country can gain by the adoption of policies unfavorable

to other countries is slight, even when the estimate is based upon faulty economic conceptions, such as those which lead to exaggerated notions of the importance of foreign as contrasted with domestic trade.

THE INFLUENCE OF MILITARY FACTORS

In the modern world, economic causes of international strife have seldom been independent causes. They have been associated with, and in large measure, an inevitable consequence of, the necessity which has obliged all countries to safeguard themselves against the contingency of war. The controversy between Germany and Great Britain regarding Mesopotamia is a familiar example. Great Britain did not oppose German economic activities in that region primarily, if at all, upon economic grounds. Under German control the trade of Great Britain in that part of the world would have been far greater in 1912 than in fact it was. Economic penetration by Germany was opposed, and rightly, because Germany would have gained a valuable strategic position from which to attempt the invasion of Egypt and India in the event of war.

Military considerations are certain to shape economic national policies to a far greater extent in the future than in the past, if nations must continue to guard themselves against war. In order to conduct modern warfare with any hope of success, a country requires abundant resources in raw materials, and must utilize the products of a great variety of highly developed industries. All nations have become fully, and one may even say, nervously, aware of the vital importance of the economic factor in war. Equitable international arrangements regarding shipping, colonies, mineral resources, and other economic matters, can be devised without much difficulty, if they are handled as purely economic business questions. Once military considerations are introduced, endless difficulties are encountered.

Considered purely as an economic question, the interdependence of nations is highly advantageous. Given assurance of permanent peace, the world would then be free to make the most effective use of its resources, labor and business organization. Measures, such as protective tariffs, designed to stimulate the industrial development of the different countries would still be adopted, but the advisability of those measures would be determined solely with

reference to economic and social considerations. Under the threatening shadow of war, each nation must endeavor to be self-sufficing, with an inevitable loss in productiveness of industry in consequence. The general adoption of preferential colonial tariff policies for example is altogether probable if wars in the future are to be anticipated. Colonial preference is a policy which is bound to excite envy and hostility, since colonies are most unequally divided among the nations. If this were a matter which might be determined solely on grounds of economic advantage, the area subject to preferential arrangements would probably not be enlarged, and it is not unreasonable to anticipate that the "open door" policy would be more generally adopted.

VITAL NEED FOR A LEAGUE OF NATIONS

Adequate preparation for war in the economic sphere breeds occasions for war. A peaceful world will never be secured as a result of agreements regarding a succession of particular economic matters which are occasioning hostility between nations. There must be convincing assurance that further wars are altogether unlikely. This assurance can only be given by the formation of a League of Nations which shall absolutely exclude the resort to war as a means of settlement of international disputes. Whether such a league should provide other means of settlement is a matter of secondary importance. The fundamental object would be gained if nations were left entirely free to resort to any and every other means of settlement, war alone excepted.

Whether there is to be a League of Nations or not, is the basic factor in the determination of all other questions which will come before the Peace Conference. If a league is not established, we must continue to assume that the world is to be organized for war and not for peace. Strategic advantages in the delimitation of territorial boundaries will then be a vital matter, as well as the possession of natural resources such as coal and iron.

Consider, to take a single instance, the situation with reference to coal and iron. After the restoration of Alsace and Lorraine to France, if the world is to be a peaceful place in the future, this change in boundaries will not make necessary a serious change in German industry. Iron will be exported to the coal producing regions of Germany just as it is exported from Sweden and Spain to Great Britain. It would be an economic loss not only to the

owners of the iron mines but also to France to retain all the iron for French use. On economic grounds, it would be no more sensible than an attempt to retain all cotton produced in the United States for our own cotton industry.

On the other hand, if the world is to be an armed camp, it will be wise policy for France to place obstructions in the way of the movement of iron into Germany. This policy Germany would naturally endeavor to counter by obstructing the movement of coal into France. Each country would be concerned to secure a more considerable iron and steel industry than the other, not upon economic grounds but for purely military reasons. Here is a situation which contains the material for endless bargaining and friction.

Most great changes come about as a result of a slow process of growth. Some few changes must apparently be made in their entirety or nearly so at the outset, if they are to be made at all. The League of Nations evidently belongs to this class. In this respect it is analogous to the federal reserve banking system. The reserve banks, operating with and through the other banks, could not have performed their functions if when they were opened they had had relations with only a small fraction of the banks of the country. Relations with all banks were not needed, but with a preponderating number of them. Similarly with a League of Nations to establish peace; it need not include every nation, but it can hardly begin with a scattering few. Unless there is a solid basis for confidence in the League, its power to eliminate war will not be sufficiently certain to render unnecessary the adoption by the several nations of policies designed to safeguard them against the outbreak of war, policies which in turn are the occasion of war.

The promise of the elimination of war by the formation of a League of Peace would be small if the economic interests of nations were fundamentally antagonistic. Happily, conditions of life upon the earth do not compel so dismal a view of the future. On the contrary, the gain to all nations from the elimination of war is large and positive. Relief from the burdensome cost of constant military preparation, and from the huge cost of occasional wars, would be well worth the sacrifice of much in economic advantage and opportunity. No such sacrifice is, however, involved. It is only through the establishment of the world upon a peaceful basis that full and effective use of the natural resources of the world can be made.

Economic Foundations of the League of Nations

By Frederic C. Howe
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THE economic collapse which has come to Russia, Austria-Hungry, Germany, Belgium, and in only lesser degree to England, France, Italy and the neutral countries of Europe, is forcing on the attention of the peace conferees in Paris the extent to which the world has been internationalized during the last half-century, and the necessity for a new kind of peace if the world is speedily to come to life again. We are accustomed to think of international questions in exclusively political and territorial terms. This is one of the heritages of the dynastic and military order, which puts emphasis upon enlarged boundaries, a big population, and the other emblements of the purely political state. Such have been the political concepts for hundreds of years, and it is not surprising that the representatives of all the powers at the Peace Conference should have brought to their task traditions of a peace based upon political and territorial adjustments.

Fifty years ago nations were largely self-sufficient. They produced for their own consumption. Iron, steel, copper, rubber, cotton, wool, silks and the products of the tropics had not entered into the lives of all peoples as they have at the present time. The twenty years which preceded the war was a period of colossal international expansion and in 1914 the foreign trade of the world exceeded $40,000,000,000. Of this, one-fourth was in the hands of Great Britain and Germany. Surplus wealth had ventured out from creditor countries, especially England, France, Germany and Holland, in search of trade and commerce, for the development of resources in backward countries, the building of railroads, and the making of loans in backward states. Upwards of $40,000,000,000 had been so invested by the great creditor nations of the world.

These are but suggestive of the extent to which the world was interlaced by economic connections. Branch banks radiated from London, Paris and Berlin. The ports of Great Britain, as well as Hamburg, Bremen, Antwerp and Rotterdam, were *entrepots* for the wealth of all the world. Explorers were followed by traders

all over the Orient, South America, to the fastnesses of Africa. The overseas wealth of the powers of Europe was equal to a sum almost as great as the combined domestic wealth of England and France.

The war shattered this colossal structure of finance and banking, of trade and commerce, of exploitation. The internationalism of the world which had involved hundreds of years in its building suddenly came to an end. The central powers and Russia were under a blockade. England, France, Italy and Belgium were subjected to a similar embargo by the shortage of ships. The transportation agencies of the world were commandeered for the war. When the armistice was signed the old economic order was in a state of collapse. Germany had no raw materials. England was short of a thousand things and France was in the same condition. The Russian peasants, cut off from industrial supplies such as agricultural implements, tools, clothes, shoes and other supplies, were unable to sell their wheat, which accumulated in vast quantities outside of the industrial centers, which were starving because of their inability to carry on exchange with the food producers on the one hand and the outside world on the other. Italy has no iron ore, no copper, no coal. She has to rely upon some one of the greater powers for her elemental commodities, upon which her industrial life depends.

The great task of the world, and of the Peace Conference as well, lies in putting the world to work again. And this can only be done by establishing the internationalism which the war destroyed. This the powerful classes within the various powers are unwilling or unable to do. They are seeking all kinds of privileges, especially protective tariffs, to protect their war made industries and enable them to monopolize their home trade. This is true of France, Italy and Great Britain. There is some short-sighted justification for this attitude, for all of the European countries have been stripped of their gold reserve. They are on a paper basis. If they buy largely from foreign countries, they can only pay in gold or credits. So they feel they must produce for their home market, and export as much as possible to foreign markets. But such export will be limited and possibly blocked altogether if these protectionist policies are carried out. Germany cannot pay her indemnity; she cannot pay for the raw materials which she

must have unless she is permitted to exchange her factory products for these commodities. The same is true of all of the other countries.

An international economic council in continuous session is one of the first needs of peace. It should have power to organize information and familiarize the world with the needs of the world. For a time at least it should have some powers over shipping and raw materials. Only in this way will it be possible for the limited cargo space to meet the more urgent needs of the various countries, and by the establishment of priorities prevent shipping and transportation agencies from being used for secondary purposes.

A similar financial organization should be created under the control of governmental agencies. It should be a banking, trading and exploiting concern with powers to place loans where most needed. It should also have power to develop resources and promote trade with backward countries.

But these are at most only temporary expedients to tide over an immediate emergency. If we would have a secure peace, if we would banish the fear which is one of the causes of war, the world must be freed from the idea of exclusive, self-contained nationalism which has led to annexations, protectorates, spheres of influence and the closed door, as well as the erection of fortresses on strategic places on the seas. The nations which control iron ore, coal, copper and oil control in large measure the economic life of the rest of the world. And this is a power which no nation or group of nations should enjoy. Germany aimed to lay her hands on the iron ore and coal of France and Belgium. This would have given her command of almost all of the iron ore and coal on the continent of Europe. It would have made France, Italy and central Europe subject to her. Great Britain through her command of the Mediterranean commands the trade to the Far East and the resources of Africa.

An economic peace paralleling the principles laid down by President Wilson should free the world as far as possible from the exclusive control by any nation of the international connections and necessities of the rest of the world. Provision should be made for:

1. The ending of all spheres of influence, the closed door and exclusive privileges in backward countries such as Africa, Asia and the Far East. These countries should be free to trade on equal terms with all the world. Their raw materials should be

offered to all without discrimination; while their ports and harbors should be placed under international guardianship to prevent discriminating port and harbor dues.

2. The strategic water-ways of the world should be policed by the world and open to all on equal terms. Such water-ways include the Mediterranean, the Black Sea, the Persian Gulf, the Baltic, the Kiel Canal, Suez Canal and Panama Canal. Commanding fortresses like Gibraltar and Constantinople should be internationalized and used as an agency of the League of Nations to enforce its decrees.

3. The right of exploitation of weak and backward nations should be placed under international control as a means of protecting native peoples from extortion and monopoly control, as well as for opening up their resources on fair and equitable terms to all the world.

4. Possibly the greatest need of all is free trade: such free trade as will enable countries like Italy and France to develop their own cultural and industrial life along natural lines. These nations should not be driven into unnatural channels by military and industrial necessities. Possibly international free trade is out of the question for the present. But an international economic conference in constant touch with the economic conditions and possibilities of the world might do much towards the promotion of more intelligent tariff schedules, and ultimately, as peace becomes more secure, lead to the development of freer trade relations between nations.

5. Such a program is admittedly difficult. There are too many powerful interests in all of the countries which seek to protect themselves by exclusive and monopoly rights. But the alternative may be industrial bankruptcy. It may be the rapid spread of Bolshevism and revolution because of the inability of nations to set their millions at work again. For revolutions are born of hunger and destitution. And Europe is in such a state of collapse that it cannot wait for an indefinite time for statesmen to debate these questions. Nor is it safe to go back to the old philosophy of imperialism that preceded the war and was largely responsible for its outbreak. For if the war has demonstrated anything it is that subject nations will not remain subject, and that the expanding industrial world will not permit its expansion to be constricted as it has been in the past.

REPORT OF THE BOARD OF DIRECTORS, YEAR ENDING DECEMBER 31, 1918, AMERICAN ACADEMY OF POLITICAL AND SOCIAL SCIENCE

I. Review of the Academy's Activities

The entry of the United States into the great war, far from limiting the Academy's activities, served to emphasize the importance of the national mission which the Academy is called upon to perform. It is a matter of common knowledge that when we entered the war the country was unprepared from a military standpoint. It is also true that the country was intellectually unprepared to cope with the great international issues raised by the war. The year that has elapsed has witnessed a marked advance in the enlightenment of public opinion, but it is evident that the part that this country will be called upon to play, not only in the final settlement, but in the future problems of world readjustment, will demand of the American people a deeper interest and clearer insight into international problems.

Furthermore, the great democratic purposes for the attainment of which the United States entered the war carry with them implications in our domestic policy which we cannot afford to ignore. Now as never before must the United States demonstrate to the world that democracy is not merely a form of government but that it carries with it the obligation to develop an industrial and social system truly democratic both in structure and operation. We are facing a period in which domestic problems of far reaching importance must be solved, and they can only be solved through a fuller appreciation on the part of the people of this country of the larger and deeper significance of a democratic régime.

It was with a view to enabling the Academy to contribute its due share to this great purpose that the publications and conferences during the past year have been arranged. Your board feels that the members of the Academy may look back upon the activities of 1918 with very real satisfaction.

We are all particularly indebted to Dr. Clyde L. King for the high standard that has been maintained in the Academy's publications. With each year, to an increasing extent, the Academy

publications serve in giving to our members as well as to the general public, the material upon which to form a judgment on the great national problems confronting the country. Such a service is of special importance in a great democracy such as ours where in the last analysis public policy must be guided by public opinion. Your board desires to take this opportunity to express a deep sense of obligation to the chairman and to each member of the editorial council for the devoted service that they have given to the Academy. A large group of specialists under the direction of Dr. King have patriotically given of their time and energy with no thought other than service to their country and with no compensation other than the satisfaction of a public duty well performed.

Your board again desires to call attention to the pressing need of an endowment fund which will enable the Academy to conduct special investigations on a much larger scale than has heretofore been possible and will also enable us to secure the Academy building of which we stand in such great need.

II. PUBLICATIONS

During the year 1918 the Academy published the following:

Financing the War (January)
War Adjustments in Railroad Regulation (March)
Social Work with Families (May)
Procedure in State Legislatures (May Supplement)
Mobilizing America's Resources for the War (July)
War Relief Work (September)
Rehabilitation of the Wounded (November)

III. MEETINGS

During the year 1918 the Academy held the following meetings:

January 26—Rehabilitation of the Wounded
April 26 and 27 (22nd Annual Meeting)—"Mobilizing America's Resources for the War"
September 20 and 21—Rehabilitation of the Wounded
December 21—The Industrial and Financial Outlook

IV. MEMBERSHIP

The membership of the Academy on the 31st of December, 1918, was 6,579 with a subscription list of 1,135. Of the 6,579 members, 6,325 were residents of the United States and 254 for-

eign. Of the 1,135 subscribers, 1,023 were in the United States and 112 foreign. Compared with the membership on the 31st of December, 1917, we find a gain of 312 in the United States and 4 foreign, or a total of 316. In the subscription list, there is a gain of 73 in the United States, and 10 in the foreign, or a total gain of 83. The total gain during the year 1918 in the combined membership and subscription lists is 399. During the year the Academy has lost through death 68 of its members, three of whom were life members.

Foreign

Albert Ballin
Senor Don Marcial Martinez
*Frederick William Frankland

Philadelphia

Walter L. Bacon
Charles O. Baird
W. H. Barnes
Hon. Rudolph Blankenburg
Horace Brock
*T. Wistar Brown
William Burnham
Harris J. Chilton
Mrs. Everett U. Crosby
Dr. Samuel G. Dixon
Harry C. Francis
A. T. Freeman
Harry Gross
Henry Justice
W. J. McCahan
Hon. Stephen Leslie Mestrezat
James Pollock
Hon. William P. Potter
Joseph P. Remington
Jay B. Roesnheim
E. B. Smith
George W. Stoker
J. S. Wentz

Outside

Dr. Edward T. Abrams
Charles Frederick Adams
Nathan W. Blanchard
Charles E. Burbank
J. J. Burleigh
R. J. Camp
Rev. Emanuel C. Charlton
G. W. Creighton
A. C. Einstein
Hon. C. W. Fairbanks
Mrs. Lucretia R. Garfield
Richard T. Green
Rev. J. Francis Gregory
Frederick Gross
N. F. Hawley
Rowland G. Hazard
William Herbert
W. A. Hunton
Hon. Grenville M. Ingalsbe
G. B. Jennings
J. G. Battelle
Mrs. Mary Morton Kehew

* Life member.

Jacob H. Krout	*Colonel R. B. Bicketts
George V. Leverett	Charles Scott
Arthur F. Luke	Joseph A. Sinn
C. G. Macey	George C. Smith
Dr. I. W. Marstellar	Charles B. Scutter
Hon. Francis G. Newlands	Hon. William H. Stead
Benjamin Nields	W. D. Straight
R. M. Olyphant	W. H. Swift
John Howe Peyton	T. T. Watson
Richard H. Reeve	F. W. Whitridge

The death of these members has deprived the Academy of some very warm friends and enthusiastic workers.

During the year the Academy has lost by resignation 402 of its members and 41 subscribers, while 786 members and 124 subscribers have been added to the list.

In addition to the resignations and deaths, there are being held for two years to June 30, 1918, 99 members; to December 31, 1917, 43; and to December 31, 1918, 94.

V. FINANCIAL CONDITION

The receipts and expenditures of the Academy for the fiscal year just ended are clearly set forth in the treasurer's report. The accounts were submitted to Messrs. E. P. Moxey & Co. for audit, and copy of their statement is appended herewith.

In order to lighten the burden of expense incident to the Annual Meeting, a fund of $843 was raised. For the September conference on "The Rehabilitation of the Wounded," the sum of $50 was contributed. The Board desires to take this opportunity to express its gratitude to the contributors to these funds.

VI. CONCLUSION

One of the problems confronting your board is to develop closer personal relations between the members of the Academy so that each member will feel a sense of responsibility for the extension of the Academy's influence in the community in which he or she lives. With each year the enlarging possibilities of the Academy become more apparent and it is only through the personal interest of our

* Life member.

members that these possibilities can be realized. In no other way will the Academy be able to fully realize the possibilities of its usefulness.

January 18, 1919.

CHARLES J. RHOADS, ESQ., TREAS.,
American Academy of Political and Social Science,
Philadelphia, Pa.

Dear Sir: We herewith report that we have audited the books and accounts of the *American Academy of Political and Social Science* for its fiscal year ended *December 31, 1918.*

We have prepared and submit herewith statement of receipts and disbursements during the above indicated period, together with statement of assets as at December 31, 1918.

The receipts from all sources were verified by a comparison of the entries for same appearing in the Treasurer's cash book with the record of bank deposits and were found to be in accord therewith.

The disbursements, as shown by the cash book, were supported by proper vouchers. These vouchers were in the form of cancelled paid checks or receipts for moneys expended. These were examined by us and verified the correctness of the payments made.

The investment securities listed in the statement of assets were examined by us and were found to be correct and in accord with the books.

As the result of our audit and examination we certify that the statements submitted herewith are true and correct.

Yours respectfully,
EDWARD P. MOXEY & Co.,
Certified Public Accountants.

Balance Cash on Hand January 1, 1918			$3,750.59
Receipts			
Members' Dues		$25,075.55	
Life Membership		100.00	
Special Donations		1,068.00	
Subscriptions:			
Individuals	$508.74		
Agents	3,363.47		
Libraries	489.35		
		4,361.56	
Sales of Publications		4,320.68	
Interest on Investments		5,039.30	
Sundries		.75	39,965.84
			$43,716.43

Disbursements

Office Expense:		
Office Salaries	$2,997.74	
Special Clerk Service	10.25	
Supplies and Repairs	707.11	
Stationery and Printing	37.91	
Telephone and Telegraph	56.25	
Postage	224.71	
Freight, Express and Carfare	14.11	
General Expense	1,186.80	$5,234.88
Philadelphia Meetings:		
Salaries	$1,106.06	
Hall Rents	600.00	
Stationery, Engraving and Printing	1,186.56	
Expenses of Speakers	348.78	
Postage	357.21	
Telephone and Telegraph	33.66	
Carfare, Newspapers, etc.	117.14	3,749.41
Publicity Expense:		
Salaries	$1,124.18	
Pamphlets, Cards, etc.	109.45	
Postage	1,221.16	
Stationery, Supplies and Repairs	1,055.99	
Telephone	2 65	
Freight, Express and Carfare	.85	3,514.28
Publication of *Annals*		
Salaries	$2,823.55	
Printing	9,535.98	
Reprints	484.96	
Binding	611.52	
Postage	1,344.24	
Advertising	256.91	
Stationery and Supplies	551.27	
Freight, Express, Carfare and Sundries	400.62	
Telephone and Telegraph	154.32	
Storage and Insurance	13.96	16,177.33
Membership:		
Salaries	$1,829.50	
Stationery and Supplies	276.71	
Postage	320.16	
Sundries	37.41	2,463.78
Investments Purchased		5,000.00
Interest, Premiums and Commissions		9.25 $36,148.93
Balance December 31, 1918		$7,567.50

ASSETS

Investments (book value)		$105,505.77
Cash:		
In Academy Office	$300.00	
In Treasurer's Hands:		
Centennial National Bank	200.00	
Girard Trust Company	7,067.50	$7,567.50
		$113,073.27

LIABILITIES

None

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